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17 March 1983

Worldwide Report

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STUDY SHOWS BALTIC RECOVERING FROM PCB, DDT DAMAGE

Stockholm DAGENS NYHETER in Swedish 17 Feb 83 p 36

[Text] The Baltic and the Gulf of Bothnia are recovering faster than any researcher had dared to hope for, at least with respect to levels of the dangerous environmental poisons PCB and DDT.

This is according to a comprehensive study of fish and seabirds submitted by the Environmental Protection Agency last Wednesday. The study is a compilation of tests made by Mats Olsson with the National Museum of Natural History and Lars Reutergard with the Environmental Protection Agency from 1967 to 1982.

The tests show a rapid decline in the levels of PCB and DDT in Baltic herring, pike and seabirds since these poisons were banned. The decline is believed to have been simultaneous in the areas studied, with one exception, the southern portion of the Gulf of Bothnia between Oregrund and Gavle, where Baltic herring still contains as much PCB as it did in the early seventies.

"Results from the southern portion of the Gulf of Bothnia are disturbing," said Mats Olsson. "The levels of poison does not make Baltic herring unfit for human consumption, but it could be a threat to the fauna for the longer term. The figures indicate that PCB is still being dumped in the Gulf of Bothnia."

Studies in the Gulf of Bothnia will now be intensified. Finnish authorities will also participate in the effort to determine the cause.

PCB was dumped in the area earlier, but researchers do not consider it very likely that these dumpings would affect the test results.

Since 1971 the use of PCB has been very limited in Sweden. Many countries restricted the use of PCB during the early seventies.

Several countries banned the use of DDT between 1969 and 1972. Sweden, however, allowed pine-tree seedlings to be dipped in DDT up until 1975.

Effective

The National Museum of Natural History began to collect fish and seabird eggs in 1967 in order to study the effect of the environmental poisons DDT and PCB. The levels of poison provided a good picture of the pollution situation in rivers, lakes and in the Baltic.

Studies indicate that restrictions against DDT and PCB have been effective. Levels of these poisons have declined in all the materials studied and the decline seems to have been simultaneous in the various environments. The level of PCB declined in lakes since the early seventies, while the decline in tests from the Gulf of Bothnia and the Baltic as a whole began to appear in the late seventies.

"The Baltic has recovered more quickly than the gloomy predictions gave reason to suspect," said Mats Olsson. "However, the PCB situation in the southern portion of the Gulf of Bothnia is an exception."

When this environmental study is submitted to the Gulf of Bothnia Committee in Sundsvall next Wednesday, representatives from Finland may complement the positive Swedish reports by announcing that there is now an increased effort on the part of the sea eagle to propagate again in northern Kvarken.

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CSO: 5000/2548

WORLDWIDE AFFAIRS

SWEDEN CONTRIBUTING TO UN STUDY OF THIRD-WORLD ENVIRONMENT

Stockholm DAGENS NYHETER in Swedish 14 Feb 83 p 7

[Article by Anders Johansson: "Extra Swedish Aid; 7.5 Million Kroner for Survey of Developing Nations' Environmental Problems"]

[Text] Nairobi, Sunday--Sweden has promised extra aid amounting to 1 million dollars, the equivalent of 7.5 million Kroner, to the UN environmental agency UNEP [UN Environment Program], to be used for surveying the serious environmental problems in a number of third-world countries.

Cecilia Nettelbrandt, Swedish ambassador to Nairobi and also a representative to UNEP, which has its headquarters in the Kenyan capital, will sign an agreement for the extra aid on Monday. UNEP will be represented at the signing by its managing director, Dr Nostafa Tolba.

Sweden's regular annual contribution to the UN environmental agency is about 6 million dollars, or about 45 million Kronor.

The extra contribution will be used to initiate an experimental program for the purpose of treating serious, long-term environmental problems in the third world in a comprehensive manner.

The program will be concentrated to desert expansion, forest devastation, soil destruction and water problems in the third world. In the discussions within UNEP Sweden has pointed out the necessity of treating these serious problems from a comprehensive viewpoint, which includes conservation of the environment as well as general economic and social development in the developing countries.

Holland Also Gives Extra Money

Holland will also give an extra contribution of 1 million dollars to UNEP, but that is to be used for technical assistance for already identified environmental problems in the third world. The FRG is making technicians, equipment etc. available for this purpose.

Of the original 118 developing nations 12 have been selected for the "Swedish" experimental program: three in Latin America (Colombia, Jamaica and Peru), three in Asia and the Pacific Ocean (Bangladesh, Indonesia and Papua-New

Guinea), four in Africa (Botswana, the Ivory Coast, Kenya and Morocco) and two in the Middle East (Jordan and Oman).

Two Project Packages for Each Country

The UNEP delegation will visit all of these 12 nations during the spring in order to identify environmental problems and study the willingness and ability of their respective governments to carry out potential assistance programs. Four nations will then be selected for visits this fall by expert groups, which will work out two project packages for each country.

In about a year UNEP will then function as a "broker" and help the selected developing nations to find financial backing for the environmental projects. UNEP is hoping that among others UNDP [UN Development Program], the World Bank, the Arab Fund and individual countries will come forward.

If Sweden is to participate in the future in any of the project packages it is likely to be in developing nations which are already so-called program nations for aid, which in this connection means Bangladesh, Botswana and Kenya. Among the nations "in reserve" on the UNEP's list may be mentioned Tanzania, Zimbabwe and Lesotho, among others, where the development agency Sida [Swedish International Development Agency] is also active.

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CSO: 5000/2546

QUEENSLAND CONSERVATIONISTS GIRD TO BATTLE GOVERNMENT

Brisbane THE COURIER-MAIL in English 1 Jan 83 p 2

[Article by Bill Ord]

[Text] If the Premier, Mr Bjelke-Petersen and his Ministers thought the conservationists gave them "curry" in the last 12 months, it is nothing to what the Government can expect in the next 12 months.

Last year may well prove to have been little more than teething time for the young, tough, dedicated and increasingly skilled professionals who speak for Queensland's major environmental action groups.

This year, the likes of the Queensland Conservation Council's Ms Liz Bourne and the Wildlife Preservation Society's Mr Don Henry are determined to sink even sharper teeth into every government policy and action which does not square with what they consider to be sound environmental philosophy and action.

And, with equally young and tough allies like the Rainforest Protection Society's Ms Aila Keto, the Australian Conservation Foundation's Mr David Allworth and the Littoral Society's Mr Eddie Hegerl, they are not going to let go until they win their war, which they admit will be long and bitter.

This war is against what they would describe, at best, as ecological insensitivity or, at worst, environmental stupidity, which is as dangerous to man's present and future physical, intellectual and emotional well-being as it is unknowing or uncaring about the land and life forms without which that well-being cannot be fully achieved.

The conservationists have set their sights on government — federal, state and local — because they believe it is government which makes or allows the ground rules and circumstances which determine whether cupid-

stupidity or common sense will eventually win the battle for the environment.

They feel that, although immense efforts still have to be made to win more hearts and minds, the general public is pretty much aware of and largely sympathetic towards the environmental thesis.

Now the politicians must be made or persuaded to fall in line with public opinion, even if, for no better reason, it will be the smart political thing to do.

Meantime, Queensland conservation groups and their leaders have scored some impressive recent victories.

Their nominations include:

- An increase in favorable public awareness of broad conservation issues and support for local actions to preserve the natural environment.

- The federal-state declaration of the Cairns section of the Great Barrier Reef as a marine park over Mr Bjelke-Petersen's objections, and the Premier's recent about-face statement that he favored declaration of the rest of the Reef by the end of 1983.

- What amounted, in a Brisbane Mining Warden's Court hearing, to a completely new, and very public, examination of the wisdom of proposals to sand-mine Moreton Island, as a result of which the conservationists are convinced that, if the State Government does not block mining, the Federal Government will.

GOVERNMENT PLAN WOULD IMPOSE FINANCIAL PENALTIES ON POLLUTERS

Canberra THE AUSTRALIAN in English 22 Dec 82 p 26

[Article by Laura Veltman]

[Text]

THE "polluter-pays" principle, using taxation and other financial penalties against those who damage the environment, is recommended by a conservation strategy released yesterday by the Federal Government.

The Minister for Home Affairs and Environment, Mr McVeigh, announced that the Draft National Conservation Strategy for Australia had been compiled and was to be presented at a conference to be held in Canberra during February 1983.

The draft strategy is designed to be the basis of a plan for "living resource conservation for sustainable development" to be finalised at the conference and endorsed by governments, industry, commerce and community groups by mid-1983.

The draft includes background papers on co-ordinated legislative measures which Australian federal, State and local governments should take to ensure "the use of living resources on which development is based can be sustained in perpetuity, while enabling development to satisfy the reasonable needs and aspirations of society".

Incentives

Among the financial measures it says would achieve this goal are the imposition of taxes to discourage activities which do not promote sustainable resources management.

"For example, the polluter can be charged a tax relating to the output of a pollutant and to the cost of cleaning up," the draft strategy says.

But it also recognises that financial incentives can be provided to encourage conservation.

"The farmer who conserves soil can be given either subsidised credit or a tax concession," it says.

"Plant investment allowances or rapid depreciation provisions can also encourage environmentally benign products and processes."

The draft also says international conventions and agreements on conservation to which Australia is a signatory should be supported by adequate resources and administrative arrangements to give them effect.

NSW PLANS SEEK TO AVOID ERRORS OF GOLD COAST DEVELOPMENT

Sydney THE SYDNEY MORNING HERALD in English 22 Dec 82 p 2

[Article by Joseph Glascott]

[Text] Planning guidelines to prevent a string of Gold Coast-style concrete jungles along the NSW coast were issued yesterday by the Minister for Planning and Environment, Mr Bedford.

The guidelines have their genesis in the report of the two-man commission of inquiry the State Government appointed this year to hear arguments for and against high-rise projects the local council unexpectedly approved at Tweed Heads, just across the border from the Queensland coast.

Now the Minister has asked NSW coastal councils to adopt the guidelines to restrict random development of high-rise units along the coast.

"There is no doubt that a demand exists for high-rise developments in resort areas like the NSW North Coast," Mr Bedford said. "However, environmental factors such as overshadowing, the overlooking of views and visual quality must be considered if we are to avoid what has happened in Queensland."

In their report the commissioners said the Tweed Gardens twin-tower home unit project now under construction and the Seascape home unit project at Tweed Heads were too high.

The report went on to propose a method for councils to follow in determining the sites and heights of buildings in sensitive areas.

This method as illustrated in the accompanying diagram (such as Razorback Mountain) to the coastline and suggests that buildings be kept below that line. The diagram shows details peculiar to the Tweed Heads area, but the principles apply generally.

Mr Bedford said the guideline system would discourage development of any kind on coastal headlands.

The policy has been suggested as a voluntary code for councils, but if local councils allowed undue high-rise developments, he had the power to intervene under the Planning Act, he warned.

Under the powers, Mr Bedford took control earlier this year of all buildings above three storeys in Tweed Shire.

He is now negotiating with the council to lift these controls.

Releasing the commissioner's report, Mr Bedford said yesterday, "The sheer beauty of most of our coastal towns is their main tourist attraction. If that is destroyed they will have little to offer."

CSO: 5000/7541

RADIOACTIVE SAND PUTS STOP TO GOLD COAST DEVELOPMENT

Brisbane THE COURIER-MAIL in English 20 Dec 82 p 1

[Article by Breet Free]

[Text]

SOUTHPORT.— The Gold Coast City Council has ordered a halt to Southport development because of a radioactive sand scare.

The halt was ordered two weeks ago after State Health Department investigations found radioactive sand levels above the acceptable limit.

According to a senior council officer, the Gold Coast City Council is awaiting word from the Health Department what line of action to take.

The council resolved on December 10: "That no further development or filling of land be undertaken until a satisfactory clearance from the State Health Department has been provided to the council and the applicants and owners of the land be advised accordingly."

It is believed the land, which will be used for a housing development, was once a dumping point for a mineral sand mining company. The sand tailings are now under tonnes of earth fill and topsoil.

The land being tested is about .5 ha and fronts on to Ferry Road near Deauville Avenue. It is diagonally opposite The Southport School.

The council health committee chairman, Ald. John Laws, said yesterday the Health Department was continuing its tests and the council would make a further development decision when test results were received.

"But while we are waiting we can't allow any more development," Ald. Laws said. "The sand was put there many years ago and it has nothing to do with developers."

"I can recall seeing large, black mounds of sand being dumped there when I was younger."

DUTCH INCINERATOR SHIP ARRIVES TO PICK UP TOXIC WASTES

Melbourne Cargo

Melbourne THE AGE in English 21 Dec 82 p 5

[Article by Rosslyn Beeby]

[Text]

A Dutch incinerator ship, the *Vulcanus*, sailed into Melbourne yesterday to collect a highly toxic cargo that had been waiting for more than seven years.

The *Vulcanus*, which has a crew of 19, is painted a conspicuous and warning yellow from stern to stern. It travels the world loading and burning poisonous industrial wastes at sea. It was brought to Melbourne for the second stop in its first Australian visit by the chemical firm BF Goodrich to dispose of 1700 tonnes of liquid hydrocarbon wastes.

The ship called at Sydney earlier this month to collect and burn 3200 tonnes of liquid waste from ICI Australia Ltd.

A technical manager with Goodrich, Mr Norman Gamble, said the waste would be pumped directly on to the ship from two storage tanks at Coode Island, near the ship's berth at Mari-byrnong wharf. The hydrocarbon wastes, a by-product of PVC manufacture, had been stored in licensed tanks for more than seven years.

It would take 24 hours to load the wastes, which would be incinerated at sea while the ship

steamed continuously in a 25-mile radius in an area approved by the Department of Home Affairs and Environment. The exact location could not be revealed but it was 200 miles offshore near Mallacoota, or "half way between Sydney and Melbourne," Mr Gamble said.

The wastes will be burnt in two furnaces at the ship's stern, which are heated with normal fuel to 1200 degrees. The liquid waste is injected into the flames, and burnt continuously for three days. Chemical by-products of the incineration of PVC wastes are carbon dioxide, water and hydrogen chloride, which together form hydrochloric acid.

Loading of the PVC wastes will be monitored by the Environment Protection Authority, and an EPA air quality officer will travel with the ship for eight days to supervise the incineration.

Mr Gamble said scientific tests had proven marine incineration was the safest, least environmentally damaging way of disposing of intractable waste.

Goodrich had paid "well into the hundreds of thousands of dollars" for the ship's visit.

Queensland Chemicals

Brisbane THE COURIER-MAIL in English 29 Dec 82 p 9

[Text]

THE South East Queensland Electricity Board has contracted to have its lethal chemical waste, polychlorinated biphenyls (PCB), disposed of by the incineration ship Vulcanus.

It is planned to transfer the chemical to the ship which is due in Brisbane early next month.

The Vulcanus, labelled by some conservationists the "Ship of Shame", collects dangerous chemicals throughout the world and incinerates them at sea at extremely high temperatures. It then dumps the remains in the Gulf of Mexico.

The SEQEB general manager, Mr Bob Waldie, said the chemical, previously used in some electrical distribu-

tion equipment, had been stored in a maximum safety and security warehouse at Darra where it was checked regularly.

The storage was done with the co-operation of environmental authorities and the unions pending the safest and most effective method of disposal.

"The Vulcanus has disposed of PCBs held by companies in the United States on two previous occasions under the supervision of the Environmental Protection Agency.

"With union support and understanding, the contract will represent a major step towards disposing PCBs inherited when SEQEB took over the responsibilities for electricity distribution in the Brisbane metropolitan area," Mr Waldie said.

Victorian Waste in Brisbane

Melbourne THE AGE in English 31 Dec 82 p 5

[Article by Philip Chubb]

[Text]

The Environment Protection Authority has co-ordinated the transfer of potentially dangerous industrial wastes from Victoria to an incinerator ship off Brisbane.

The wastes are polychlorinated biphenyls, the fluids used inside transformers and electrical equipment.

The Minister for Conservation, Mr Walker, said yesterday that 53 tonnes of the chemicals were stored in drums around the State and 23 tonnes were trucked to Brisbane on Tuesday.

Wilson Electric Transformers had 16 tonnes of the waste and Union Carbide, seven tonnes.

Mr Walker said the wastes were a potential environmental threat. "They have been stored in drums and there is always the danger of the drums leaking or exploding in a fire. If the wastes escape they would be in the environment for a very long time," he said.

Mr Walker said the only safe way of disposing of the wastes

was through incineration.

He said they had been moved to Brisbane by semitrailer and accompanying safety vehicles. They were expected to arrive yesterday and would be immediately loaded on to the ship.

The Department of Home Affairs and Environment has issued a permit for the ship to dispose of the wastes. It will go offshore to burn up to 200 tonnes, from Victoria, Tasmania and Queensland.

Mr Walker said the ACTU and conservation groups had agreed to the move. The chemicals had been loaded under the supervision of the Department of Minerals and Energy, and escorted from Melbourne by the police and fire brigade.

Mr Walker said: "These wastes have been lying around the State for up to seven years and the EPA has worked for two years to organise their shift. I am delighted that we have been able to deal with the wastes in such an acceptable way and I congratulate the EPA for their perseverance in making sure all details were taken care of."

CSO: 5000/7540

TASMANIA'S GRAY DEFIES CANBERRA, VOWS USE OF RESOURCES

Sydney THE SYDNEY MORNING HERALD in English 17 Dec 82 p 2

[Text]

Tasmania reserves the right to mine and log the State's wilderness area, the Premier, Mr Gray, said yesterday.

He said the wilderness was worth thousands of millions of dollars to Tasmania's economy, and he rejected any Federal compensation in exchange for abandoning the Gordon-below-Franklin power project.

He said no amount of money could compensate for the power, mineral and forestry resources of the wilderness. The Tasmanian ALP leader, Mr Wriedt, said the ALP supported Mr Gray.

Mr Gray's comments have failed to draw the Home Affairs and Environment Minister, Mr McVeigh, who said yesterday it would be "absolutely wrong" of him to indicate the Commonwealth's position before talking to a sovereign State Government.

Mr Gray's comments follow reports that the Federal Government is preparing for more talks with his Government on the possibility of saving the area.

It is understood the talks centre around a compromise, with the Federal Government offering financial aid if alternatives to the hydro-electricity project can be found.

In a ministerial statement, Mr Gray told State Parliament the listing of the area by the World Heritage Committee acknowledged the construction of the dam could continue.

He said the control of the south-west region remained in the hands of his Government.

"The right to govern and make land use decisions for all of the

State has been the sovereign right of the Tasmanian Government and Tasmanian Parliament since Federation," he said.

"My Government would not contemplate any action, nor recognise or accept any outside decision that would lead to a diminution of those rights."

Mr Gray said the Commonwealth recognised Tasmania's ownership of the area. However,

he would consult with the Federal Government on a management plan for the south-west.

Mr Gray said that the people trying to blockade the Franklin dam site were "extremists" who lived in "exclusive little colonies

of dropouts that exist around the place."

Senior Federal Government ministers, including the Acting Prime Minister, Mr Anthony, are expected to meet Mr Gray next week.

Police arrested yesterday the Tasmanian Wilderness Society's director, Dr Bob Brown, on Hydro-Electric Commission property on the Gordon River.

One hundred and forty people have now been arrested and charged with trespassing since conservationists began their blockade on Tuesday.

Tomorrow 50 people will move to obstruct works on the Kelly Basin Road. A vigil camp would stay on the river.

CSO: 5000/7540

PROS, CONS OF TOURIST SITES ON ABROLHOS ISLANDS DEBATED

Perth THE WEST AUSTRALIAN in English 20 Dec 82 p 3

[Text]

A GOVERNMENT-appointed committee does not favour building tourist facilities at this stage on the Abrolhos Islands, 60km off Geraldton.

It says that, because of the ecological, economic and historical significance of the islands and incomplete information about their fragile environment, building of tourist facilities would be premature.

It suggests the establishment of a single authority, along the lines of the Great Barrier Reef Marine Park Authority, to develop a long-term management plan for the islands.

The authority would protect the environment and valuable historic and economic features.

The crayfishing industry at the islands is a major export earner for WA and Abrolhos waters contain many important pre-colonial and post-colonial shipwrecks.

The islands have unique fauna and are a haven for thousands of sea and land birds. They shelter the biggest seabird breeding sites off the WA coast.

The Geraldton mid-west regional development committee, headed by Mr Ian Johnston, was asked to examine possible development options for the islands after previous proposals met conflicting views from the tourist and fishing industries.

Limited

Under present management as an A-class reserve, the Abrolhos have limited public access.

Conservation interests and the fishing industry would generally like to see the islands remain under the closed system. The tourist industry and

others think that access is unduly restricted.

The Minister for Tourism, Mr MacKinnon, will put a submission to the Cabinet today, based on the report.

The committee received 26 submissions of which 31 per cent opposed the islands being opened to tourism. Several thought that there should be stricter controls on fishermen using the islands.

Sixty-two per cent of submissions advocated some kind of tourism, but only 19 per cent said that this should be shore-based activity.

All submissions saw the need for close management and conservation.

The report said that 10 Government author-

ities and quasi-authorities now managed the Abrolhos.

It said that the Great Barrier Reef provided an excellent opportunity to observe the operation of one management strategy of a big natural resource with multi-purpose patterns.

The committee recommended Government support for a continuing research programme at the Abrolhos.

There should be stricter controls on present use of the islands till a long-term management plan was decided.

The report said that a tourist camp was established on Pelsart Island in 1947 but the venture failed within a year because of organisation problems, and legislation had prevented shore-based tourism since then.

Under the Fisheries Act, professional crayfishermen were allowed access to the islands at all times and residency during the crayfishing season there from March 15 to June 30.

About 200 crayfishing boats operated at the Abrolhos in season.

CSO: 5000/7540

CANEFIELD CHEMICALS MAY BE POISONING BARRIER REEF

Sydney THE SYDNEY MORNING HERALD in English 18 Dec 82 p 3

[Article by Andrew Stone]

[Text]

BRISBANE. — Eroded soils and agricultural chemicals from north Queensland sugarcane fields are posing a new threat to the Great Barrier Reef, according to scientists.

The long-lasting pesticide Lindane, widely used by cane growers, has shown up in reef marine organisms and fish. Lindane has been linked with blood and marrow disorders in humans.

Little work has been done to determine its effects in the sensitive reef environment, but some researchers and conservation groups believe it should be more closely investigated.

Mr Greg Miller, a senior teaching fellow in environmental chemistry at Griffith University in Brisbane, said reefs off north Queensland canelands were extremely vulnerable to pollution by chemicals and silt.

"The big rivers of the north have been carting silt out to sea for centuries, but now we're seeing vast increases in sediment loads because of intensive land use for sugar cane," he said.

In Hawaii and New Caledonia this form of tropical marine pollution has had a devastating effect on coral.

"We don't know what is happening to the reef because it's not being looked at. But the time is very near to look at land use controls and the application of pesticides in the cane industry."

The north Queensland cane lands cover 125,000 hectares of wet tropical coast from Ingham to Mossman, where the reef is closest to the coast. About 2,000 growers produce cane worth \$300 million.

Mr Eddie Hegerl, director of the Australian Littoral Society, a conservation group, said: "The problems of silt and chemicals are ones of water quality, and water quality is critical to protect and sustain the Barrier Reef."

"The issue is not one that conservationists can solve. It is up to the cane industry."

According to a soil conservator, Mr Michael Capelin, about 10 per cent of the region has been degraded from soil erosion and fertility loss.

Most damaged areas lose up to 100 tonnes a hectare of topsoil a year, washed into creeks and rivers by heavy rains.

DROUGHT TAKES TOLL OF WHEAT HARVEST, SPREADS IN NSW

Wheat Crop Loss

Melbourne THE AGE in English 29 Dec 82 p 1

[Article by Carol Sides]

[Text]

Drought has cost Australia more than half its wheat crop, with the abnormally low harvest almost complete.

Victoria is expected to harvest only about 300,000 tonnes of wheat, compared with 2.7 million in the 1981-82 season.

Nationally the wheat harvest, which last year was 15.6 million tonnes has been reduced to 7.6 million tonnes, the lowest in more than 40 years.

The Grain Elevators Board has projected an operating loss of at least \$16 million—the largest in its history as a result of the drought.

Fewer than one-third of Victoria's grain silos were opened by the Grain Elevators Board to cope with this season's harvest. The board has reduced its capital and operational budgets by more than \$25 million to try to cut costs.

A drought seed supply scheme, started by the Victorian Department of Agriculture, the Victorian Farmers and Graziers' Association, the Australian Wheat Board and the Australian Barley Board, has organised the inspection of more than 200 wheat, barley and oats crops to ensure sufficient seed for the 1983 crops.

Seed recovery has been better than expected in some areas, despite rainfall down to 10 per cent of normal. In the Mallee, farmers are expected to have to import oats and field peas from other districts to plant next season's crops.

A vice-president of the VFGA, Mr Frank Drum, said it had been a disastrous harvest in the Wimmera. Many crops had failed completely but even in the better paddocks where farmers had hoped to harvest up to six bags an acre they had reaped only three or four.

"Virtually all most farmers can hope for is to get their seed returned," Mr Drum said. "The only income this year is what farmers can borrow against their assets. It will mean a heavy borrowing programme."

He said barley and peas were scarce in Victoria due to failed crops. Peas were bringing up to \$300 a tonne compared with about \$130 a tonne last season.

Intensive farming of chickens, turkeys and pigs would become increasingly expensive as a result, leading to increased consumer prices eventually.

Impact in New South Wales

Sydney THE SYDNEY MORNING HERALD in English 30 Dec 82 p 3

[Article by Mike Steketee]

[Text]

Regions around Moss Vale, Maitland and Moree have joined the State's drought-declared areas, leaving only the coastal strip north of Port Stephens free from the most dry conditions in recorded history in NSW.

The Minister for Agriculture, Mr Hallam, announced yesterday that a record 53 of the 58 Pasture Protection Boards had been drought-declared for January.

This meant 95 per cent of the State's rural producing areas were stricken by drought.

The severity of the drought is emphasised by the fact that, during the serious drought from 1965 to 1968, the declared areas reached a maximum of 46.

The Moree and Moss Vale areas, previously partly declared, are now fully declared drought areas and the whole of the Maitland region has joined the list.

Since April, the northern and southern wheat belts have experienced the driest periods in recorded history, which goes back 120 years.

Mr Hallam estimated yesterday that the total overall loss to the NSW economy from the drought was \$3 billion, with the real net value of farm income falling 72 per cent in 1982-83.

He said NSW is now in its 45th successive month of drought, with the situation having worsened in December because of continued high temperatures and the lack of useful rain.

The yield of 1.4 million tonnes from the wheat crop was the lowest since 1965.

The Grain Handling Authority and State Rail Authority faces a loss of \$160 million because of the poor wheat crop.

Some districts had not been able to produce crops for the past four years.

Returns for beef producers could fall because of low slaughter weight, the reduced number of saleable cattle and poor quality beef.

Mr Hallam attacked the National Party for trying to make a political issue of the drought.

He singled out a call by the party's spokesman on water resources, Mr Ian Armstrong, for the Government to provide \$2 million immediately for water for drought-stricken stock and a claim by the member for Murray, Mr Tim Fischer, that the Water Resources Commission had miscalculated the amount of storage water needed for rice, fruit and vegetable growers in the Murray Valley.

A spokesman for Mr Hallam said this year's Budget had provided for full reimbursement of the cost of sinking bores for stock water.

The spokesman said the Water Resources Commission had announced several months ago the allocations for the current crop year—40 per cent of the normal amount for the Lachlan, 85 per cent for the Murray Valley and 100 per cent for the Murrumbidgee.

These figures had not changed but in some areas the rate at which the allocation was released had been reduced. Growers would receive the same amount of water over the crop year as promised when the commission had announced its allocations.

The Government had paid out more than \$117 million in release schemes to primary producers during the current drought — \$15.5 million of it since July.

If the drought continued into the new year, these payments could double.

In a separate statement Mr Hallam said the risk of damage to drought-affected land from erosion was the highest this century.

He said the high intensity rainfall which came with summer storms did nothing to break the drought but could cause serious soil erosion.

The Soil Conservation Service of NSW is giving warnings about the danger and telling farmers how to minimise soil loss.

CSO: 5000/7541

AUSTRALIA

BRIEFS

REEF ISLAND PROTECTION--A Queensland conservation group has begun a campaign to force the P and O tourist group to relinquish a development lease it holds for a tiny Great Barrier Reef island. The Queensland Cabinet last month granted Heron Island Pty Ltd, a P and O subsidiary, a 30-year lease over half the 4.9 hectare Wilson Island, a coral cay 90km off Gladstone. The decision was taken without consulting the Great Barrier Reef Marine Park Authority, the Federal body set up to manage the Reef. Mr John Sinclair, president of the Wildlife Preservation Society of Queensland said yesterday the society would urge a boycott of the travel group and appeal directly to its headquarters in London. He said conservationists feared development of the island would upset its fragile ecology and pose a serious threat to a roseate tern rookery. The Marine Park Authority lists Wilson Island among the 10 most important sea bird nesting sites on the Reef. Mr Sinclair, who was a key figure in the battle against sand mining on Fraser Island during the 1970s, said: "The roseate tern is very attractive and extremely sensitive to any form of disturbance from humans approaching within 50 metres. Despite this knowledge, P and O seems determined to drive the colony into oblivion. Mr Leon Wruck, chairman of Heron Island said the company planned a low-key development which would protect the island's wildlife and natural resources. [Text] [Sydney THE SYDNEY MORNING HERALD in English 22 D-c 82 p 9]

TOXIC WASTE PROBLEM--Efforts to transport stores of lethal chemical waste in WA for disposal in the Eastern States have failed. It is believed that more than 100 tonnes of polychlorinated biphenyls--used in transformers and capacitors in electricity generation--are in storage in WA with no means of disposal. The waste disposal company Cleanaway has brought the incinerator ship Vulcanus to Brisbane to burn toxic waste from Queensland, Victoria and Tasmania off the coast. The WA Commissioner for Public Health, Dr J. McNulty, said yesterday that transactions had fallen through between Cleanaway and WA companies owning the waste. His Department had been involved in making arrangements to transport the material to Brisbane. [Text] [Perth THE WEST AUSTRALIAN in English 31 Dec 82 p 4]

CSO: 5000/7541

AMMONIA-UREA PLANT EFFLUENT DISPOSAL SYSTEM INADEQUATE

Energy Minister's Statement

Auckland THE NEW ZEALAND HERALD in English 28 Dec 82 p 2

[Text]

The Minister of Energy, Mr Birch, says the ammonia-urea plant at Kapuni may again produce more effluent than its disposal systems can handle.

But he added: "They have got to develop systems which allow them to cope without damaging the environment.

"It may mean slowing down commissioning (of the plant), but that is speculation at this stage."

Marine life along 300 metres of the south Taranaki coast was killed recently by the dumping of 40 tanker-loads of effluent

from the \$112 million plant.

Mr Birch wants a preliminary report on the dumping from the plant owners, Petrochem, by this week.

Make Public

The minister expects a full report — explaining how the dumping happened, who authorised it, and what disciplinary action will be taken — next week.

He has yet to decide whether to make the report public.

"But I am more anxious to get details of a management plan to ensure that this will not happen again," he said.

The plant had complex disposal systems, including effluent ponds and spraying on nearby land bought for the purpose, but those systems had proved inadequate.

Unforeseen

The ammonia-urea plant was likely to continue producing excess effluent until it was running satisfactorily, said Mr Birch. There was little control of the quantity of effluent produced.

The present disposal systems were adequate when the plant was functioning normally, and there might not be further problems,

but the plant would have to be equipped for "unforeseen contingencies."

Mr Birch added that the plant operators needed to be able to "take decisions at management level in consultation with the authorities."

The general manager of Petrochem, Mr C. J. Pope, had said that effluent had been sold to local farmers as a form of fertiliser.

Mr Birch said such sales could solve the disposal problem, but as "an off-specifications product" the effluent would have to be applied very carefully.

Illegal Dumping Probed

Auckland THE NEW ZEALAND HERALD in English 30 Dec 82 p 1

[Excerpts]

A catchment commission officer is believed to have been told about the disposal of urea effluent at a South Taranaki beach a week before anything was done about the illegal dumping.

The Herald was told that a staff member of Petrochem's \$112 million ammonia-urea plant at Kapuni discussed the dumping with a Taranaki Catchment Commission officer at the plant on Wednesday, December 15.

It appears the commission's senior officials did

not learn of the dumping until nearly a week later, by which time marine life along 300 metres of foreshore near Manaia had been killed by the effluent.

Water Right

Although Petrochem did not seek the water right it needed by law to dump the effluent, the state-owned

company is now likely to claim in its defence that at least it told the catchment commission.

The commission manager, Mr John Douglas, confirmed last night that one of his staff had been told about the dumping when visiting the ammonia-urea plant on December 15.

General Terms

"They mentioned to one of our staff that they might do it," Mr Douglas said.

"It was a discussion in very general terms, at very low levels."

Second Time

"They certainly should have applied for a water right to do it and if they had asked for one they would not have got author-

ity for the concentrations that were dumped there."

He said the commission would probably decide at its meeting in mid-February whether Petrochem would be prosecuted for the dumping, which is the second time in two months that major pollution has been caused by effluent from the recently opened plant.

In October, 20 kilometres of the Kapuni Stream was

laid waste by effluent from the plant, which is one of the Government's "think big" projects and is designed to convert Maui gas to urea fertiliser.

Mr Douglas said pollution from the ammonia-urea plant and a recent caustic soda spill at a dairy company at Opunake highlighted the need for giving catchment commissions better control over waste disposal.

With other projects, such as the methanol and synthetic petrol plants now being built in Taranaki, there was a need for adequate plans for serious chemical spills and tighter laws governing waste disposal systems.

Mr Douglas said he would ask the commission to consider changes in the law, including bigger fines for offenders.

CSO: 5000/9087

MINISTER DENIES OPENCAST COAL MINE THREATENS ENVIRONMENT

Auckland THE NEW ZEALAND HERALD in English 7 Jan 83 p 10

[Excerpts]

Critics of the proposed Ohinewai open-cast coalmine overlook today's stringent environmental standards, says the Minister of Energy, Mr Birch.

Nobody could pick and choose where coal was found, the minister said in an interview, and there was no alternative to mining coal where it lay in the ground.

But the question of Ohinewai turning into another Clutha dams controversy or becoming a mini-Ruhr did not arise because there was no comparison.

"We have no alternative but to use the coal where it is and to say to the coal industry that it is going to have to maintain standards that are environmentally acceptable today.

"What is being overlooked is that standards today are very much higher than in the past. You do not get consents today to pollute."

Alarm

Farmers around Ohinewai, a small Waikato town-

ship just north of Huntly, have voiced alarm at proposals by the mines division of the Ministry of Energy to greatly expand the size of a planned open-cast coalmine.

The division is looking at doubling the proposed capacity to a million tonnes a year and there have been suggestions, not rejected by Mr Birch, that new "super-fast-track" planning legislation under study by the Government may be used to get the mine working.

A Wellington energy researcher, Molly Melhuish, has predicted that Ohinewai will be the Clutha controversy of the next few years, and the Federated Farmers has claimed that unchecked development would turn the area into a mini-Ruhr.

Extravagance

Ohinewai will be New Zealand's biggest coalmine,

but Mr Birch says mines in the German Ruhr industrial region produce up to 50 million tonnes of coal annually and some are up to five kilometres wide, so Ohinewai would be only a fraction of their size.

"I think it is extreme extravagance to say it has elements of a Clyde dam controversy. People can create those controversies if they try hard enough, and I am not discounting the fact that there will be many people who will prefer not to see the coal-mining proceed.

"You really have got to mine coal where it is and where it can be produced economically. Otherwise you are imposing penalties on the economy and if you keep doing that, you will simply put New Zealand out of business."

CONSERVATIONISTS DECRY PROPOSED NATIVE TIMBER LOGGING

Auckland THE NEW ZEALAND HERALD in English 21 Jan 83 p 1

[Text]

A Forest Service plan for the Kaimai-Mamaku Forest Park rules out large-scale felling of native timber but leaves the way open for limited logging of kauri, rimu and tawa.

The plan, published this week, has already drawn fire from conservationists who claim it fails to reflect widespread public opposition to the logging of native timber.

The forest park, stretching 70 kilometres between Paeroa and Rotorua, contains areas of both native and exotic forest.

Guidelines for its management over the next 10 years are proposed in the draft plan, which is open for public submissions until April 22.

Replanted

The plan says some kauri stands will be set aside as forest sanctuaries, but it allows for periodic thinning of other kauri stands, mature trees excluded.

A pine plantation will be logged and replanted mostly in kauri.

The plan avoids an immediate decision on the future of substantial volumes of tawa in the

forest park, but says demand for the native hardwood will increase as supplies elsewhere dwindle.

"Responsible management does not mean that these resources are to be locked up, unable to be utilised for society's future needs," it says.

"At the same time, tawa-dominated forest has significant recreational use and aesthetic appeal."

"Research-scale" logging of tawa would be allowed, but the public would be consulted before any other felling of the trees.

The plan makes similar provisions for rimu, but with no mention of research logging.

The director of the Joint Campaign on Native For-

ests, Mr Guy Salmon, said yesterday that the Forest Service was going against public opinion in keeping open the option for native timber logging.

Major Battle

The overwhelming majority of public submissions on the previous Kaimai-Mamaku plan in 1976 had opposed the logging of native trees, he said.

The campaign would press to have the forest park rezoned as a reserve or a protected forest. Campaign members would meet at Tauranga in April to focus attention on the forest park.

"I think it will be our major battle this year," said Mr Salmon.

PHILIPPINES TO JOIN CAMPAIGN AGAINST N-WASTE DUMPING

Rangoon THE WORKING PEOPLE'S DAILY in English 3 Feb 83 p 6

[Text]

MANILA, 1 Feb—The Philippines will join the South Pacific Forum countries in seeking a stop to the dumping of nuclear waste in the Pacific, President Ferdinand Marcos said today.

The move was in response to the appeal of Nauru and Kiribati Islands which are leading the campaign to ban the dumping of nuclear waste specially in areas around countries in the Pacific basin, a Malacanang Palace statement said.

Nauru President Hammer Deroburt said during his meeting with Marcos that the danger to the ocean ecology and the people of the South Pacific of such nuclear waste dumping is patent and clear.

The issue will be taken up by the meeting opening February 14 in London of the Consultative Committee of the London Anti-Dumping Convention of 1972, under the auspices of the specialized United Nations body Inter - Governmental Maritime Consultative Organization (IGMCO).

NAB/AFP

GERMAN DEMOCRATIC REPUBLIC

INTERNATIONAL COOPERATION NEEDED TO COMBAT POLLUTION

GDR Minister Interviewed

AU081203 East Berlin NEUES DEUTSCHLAND in German 5-6 Feb 83 p 9

[ND interview with Hans Reichelt, deputy chairman, GDR Council of Ministers; GDR minister for environmental protection and water management--date and place not given]

[Excerpts] [Question] Now, air pollution does not stop at the borders. In the past few days the FRG mass media have reported in this connection on certain activities of FRG politicians vis-a-vis the CSSR and the GDR. What is your opinion on that?

[Answer] Certainly, one can proceed from the fact that such activities serve above all propaganda purposes. We take that into consideration, but we are, so to speak far away from any propaganda bustle, ready to cooperate with all interested countries.

On principle, however, one must state first of all that the GDR receives as many air pollutants as it releases in return--but of course, there are certain differences in the balance with individual countries. Joint efforts are, for instance, necessary to prevent further damage to the forests along our state border with the CSSR.

As a result of longer cooperation the governments of the GDR and the CSSR have therefore concluded a government agreement and on this basis have agreed on specific projects to reduce the sulfur dioxide pollution, reduce the emission of malodorous substances, measures to protect and preserve forest areas and measures for scientific-technical cooperation. This is coordinated, controlled and guaranteed by government representatives of both sides.

With these activities the convention on border-crossing air pollution signed at the All-European Environmental Congress in November 1979 is taken into account.

Regarding the effects on the border area of the GDR and the FRG by the Blankenstein Paper Factory, one can say that already in the past 2 years the acute effects were considerably limited by a number of measures and were further reduced.

[Question] Like air, waters too do not stop at the border. Their middle point often even forms the border. What are the main tasks for cooperation here?

[Answer] Here too the GDR government proceeds from the fact that through good neighborly relations it is possible to ensure, in the mutual interest, the utilization and cleanliness of the waters and also efficient measures for flood protection.

For instance since the 1960's the joint tasks as regards the GDR's border waterways with the CSSR and the Polish People's Republic have been settled on the basis of joint government agreements. Government representatives and working groups discuss the many questions together and solve them to the benefit of both sides.

In the last years cooperation with the FRG government has taken a positive direction. Within the framework of the border commission agreements on the constant preservation of border-crossing waterways were concluded. Thus the use of the Ecker Dam, being on the territories of both the GDR and FRG, and the use of the Ecker long-distance waterpipes for supplying FRG cities with drinking water was agreed. Also the construction of a new storage basin for flood protection on the Itz on the territory of the FRG by means of the use of GDR territory was settled through an agreement. Proposals for settling further questions concerning the protection of the waters of the Steinach were handed over to the FRG government. Joint proposals were also worked out to reduce the water contamination of the Werra and were submitted for decision. As a sign of its good will the GDR government declared its readiness for consultations on questions on the protection of the Elbe.

Here, one also has to remember the water protection agreement concluded with the Senat of Berlin (West) recently.

The convention on the protection of the sea environment of the Baltic Sea area, which was signed in 1974 by all seven Baltic Sea states, is proving to be particularly efficient. The GDR tries to conscientiously implement the obligations resulting from this convention. Thus in the catchment area of the GDR the number of contaminants in the rivers that flow into the Baltic Sea have been considerably reduced. A facility to treat ships' waste waters containing oil has started operation in Rostock harbor. Nearly all ships of merchant, fishing and technical [technische] fleet are already equipped with bilge water oil separators and sewage tanks.

[Question] The Western mass media occasionally report on scandals in handling toxic by-products. Is something similar possible here?

[Answer] The harmless elimination of toxic by-products and harmful substances has always been an important concern of the GDR's environmental protection. To solve this task there are about 160 facilities and dumping grounds where these substances are burnt, while to some extent energy is gained, or are dumped in such a way that any damage to the environment is excluded.

The responsible supervisory organs strictly control the operation of all these facilities in order to exclude harmful effects on humans, fauna and flora, air and waters. As a result of this work it has to be stated that in the GDR no problems with toxic waste have appeared as are reported from other countries.

FRG-GDR Cooperation

AU141908 East Berlin NEUES DEUTSCHLAND in German 11 Feb 83 p 5

[ADN report from Bonn: "FRG Government Wishes to Continue Cooperation on Environmental Protection"]

[Text] The FRG government wishes to continue cooperation with the GDR on problems of environmental protection, AP reported. State Secretary Spranger of the Interior Ministry announced that an "exchange of information" on problems of desulfurizing flue gasses will begin this month which is to lead to cooperation in air purification."

CSO: 5000/3008

OIL SPILL PROTOCOL FOR CARIBBEAN HAS IMO SUPPORT

Bridgetown ADVOCATE-NEWS in English 1 Feb 83 p 1

[Text]

The adoption and subsequent entry into force of an oil spill Protocol will provide a legal framework for the development of regional and sub-regional strategies to combat oil pollution in the Caribbean.

So says David Edwards, a representative from the International Maritime Organisation (IMO), attending a five-day workshop on oil spills and shoreline clean-up at the Dover Convention Centre.

In March this year a convention on the protection and development of the marine resources of the Caribbean and a Protocol for co-operation in combatting oil spills in the region will be presented to a conference of plenipotentiaries for adoption.

Mr. Edwards told the opening of the workshop that as long as oil is transported along sea routes or extracted from the ocean bottom, there will remain the risk of oil pollution and the environmental and economic consequences.

He described the Caribbean as a relatively high risk area.

According to the IMO official: "The oil spill Protocol specifically recognises that the islands of the region are particularly vulnerable to damage resulting from significant oil pollution owing to the fragility of their economic reliance of certain islands of the region on the continuous utilisation of their coastal zones."

He said it was for that reason that participation in the current workshop was focussed on regional states, its purpose being to provide information on the most effective means of cleaning and restoring beaches affected by oil pollution.

He stated that the workshop was one of the activities incorporated in the Caribbean Action Plan, adopted in Montego Bay, Jamaica in April 1981.

The plan identified as one of its programme priorities the implementation of regional oil spill contingency plans for states stretching from the Bahamas to French Guiana.

CSO: 5000/7539

FIRM'S TOXIC WASTE KILLS FISH IN CREEK, COASTAL WATERS

Belize City THE BEACON in English 5 Feb 83 pp 1, 10

[Text] Over the weekend, starting on Sunday last, Belize City residents witnessed for the second time in recent years the terrible spectacle of thousands of dead fish floating in the Haulover Creek (which divides Belize City) and in the coastal waters surrounding Belize City. The dead fish include fresh water species as well as marine species and also crabs, shrimp and lobster.

A knowledgeable source told the BEACON that as in the case of the first wholesale poisoning of the fish, the culprit responsible for the current outrageous contamination of the Haulover Creek and hence the sea is a local firm.

According to our source, the company, in the course of its manufacturing process, produces a liquid toxic waste containing a high percentage of a deadly cyanide compound. This waste is collected and stored in cylinders on the company's premises.

However, it was learnt that the toxic waste corroded its containers and a leak developed. In an attempt to absorb the toxic waste, the company dumped sawdust on the leaked toxic waste and afterwards piled the contaminated sawdust in its yard, which borders on the Haulover Creek. The exposed sawdust got wet and the toxic waste which it had absorbed was washed out into the water table (which is very close to the surface in Belize City) and thence to the Haulover Creek itself.

The result of course is that, due to the total lack of regard for rudimentary environmental protection, the fish of the Haulover Creek and the coastal waters of Belize City are once again poisoned.

Apparently no precautionary steps were taken either by the company or the government authorities after the first poisoning. It is to be hoped that after this second outrage, some action will be taken to ensure that there is no repeat of this kind of contamination of the environment--if not by the company on its own initiative then certainly by the Government.

CSO: 5000/7542

DOMINICAN REPUBLIC

HUGE FOREST FIRE DECLARED DISASTER

FL150045 Bridgetown CANA in English 2343 GMT 14 Feb 83

[Text] Santo Domingo, 14 Feb (CANA-REUTER)--More than 1,000 troops and fire-fighters have brought under control a huge forest fire which had swept through the central mountain range of the Dominican Republic, Presidential Minister Hatuey De Camps said today.

President Salvador Jorge Blanco today flew over the 50 square km (20 square mile) zone affected by the blaze and declared it a disaster area. Last Saturday, shortly before the fire began, he had designated 1983 "Forestry Year."

Meanwhile a spokesman for the U.S. Embassy said special equipment and a team of U.S. experts requested by the Dominican Republic yesterday had arrived to help put out the fire.

The authorities have so far given no word about casualties or damage.

CSO: 4500/2014

EL SALVADOR

BRIEFS

LAKE ILOPANGO CONTAMINATED--Urgent warning. The National Aqueducts and Sewerage Systems Department announces to owners and deliverers of casks of water and also to the inhabitants of Ilopango, Soyapango, and its settlements that, according to chemical-physical-bacteriological analyses, the water of Lake Ilopango contains amounts of boron, arsenic, and other mineral salts that exceed the tolerable specifications for drinking purposes, and therefore warns communities that buy water by the barrel to refrain from doing so from those who transport water that is not actually drinkable. This can be ascertained by the turbidity, taste, and lack of clarity of the water. Drinking contaminated liquids, such as the water that is transported directly from Lake Ilopango, can cause serious health consequences. Drivers and owners of casks or water tank trucks are warned to refrain from obtaining water from the lake in order to sell it as drinking water, since this may cause serious consequences to users. If drivers and owners engage in such a dangerous undertaking, they will be severely penalized. San Salvador, 9 February 1983. [Text] [San Salvador LA PRENSA GRAFICA in Spanish 9 Feb 83 p 35] 8255

CSO: 5000/2013

CONTROLS URGED ON USE, SALE OF AGRICULTURAL CHEMICALS

Georgetown GUYANA CHRONICLE in English 29 Jan 83 p 4

[Text]

There is need for legislation to control the sale and use of agrochemicals as well as for educational programmes on the dangers of contamination.

This was decided by members of the Society of Professional Agriculturists in Guyana and Government Chief Pathologist, Dr. Leslie Mootoo, on Wednesday night at a SPAG meeting in the Teachers' Association Hall, Woolford Avenue.

It was noted that though prescriptions were needed for certain relatively harmless drugs, there is no regulation governing the purchase and use of agrochemicals, most of which are fatal to humans.

The agriculturists observed that

agriculture field workers often disregard safety procedures when dealing with the chemicals since in many cases the harmful effects of contamination are not immediately apparent, but they come to the fore in later years.

All agreed that both educational programmes and a system of body checks similar to the one used for checking X-ray department workers were needed.

Dr. Mootoo said that the first known cases of agro-chemical poisoning occurred in 1962 when 19 persons died and 64 were hospitalised after eating imported flour. Investigations revealed that this food was stored along with parathion, a deadly organic phosphate on board a ship. He added that over the last five

years he performed autopsies on 242 persons who died from agro-poisoning. Most of these, however, were suicides.

The Chief Pathologist warned that the increased agricultural drive could result in more deaths from agrochemicals. He drew a parallel with this and the fact of increased road deaths with the construction of more and better roads.

Dr. Mootoo further extended his warning to the area of food products. He said that because of the current practice of hoarding persons may find it necessary to spray insecticides to keep away insects. This practice can be dangerous, he said, if carried out by untrained and inexperienced persons.

ENVIRONMENTALISTS URGE REAPPRAISAL OF DAMS POLICY

Calcutta THE STATESMAN in English 18 Jan 83 p 13

[Text] New Delhi, Jan 17--Growing pressure from environmental groups is forcing the Government to reappraise its policy to build more and bigger dams, reports PTI.

It has already built 1,554 large dams and many small and medium dams at a cost of more than Rs 10,000 crores and another 200 hydro-electricity projects are either underway or planned.

For a country heavily dependent on oil imports, the temptation to harness rivers is almost irresistible, but with sites in the outer Himalayas now more or less exhausted, the country's dam builders are moving deep into the Himalayan interior where the ecological system is extremely fragile, causing concern among environmentalists.

A local movement opposing construction of the 480 MW Irayag project has drawn attention to the ecological dangers it poses.

Concerned by the growing criticism of large dams, India's Planning Commission has recently set up three working groups to revise the existing standards for evaluating them.

The Commission which clears all major dam projects, is now even challenging the assumption that hydro is the cheapest form of electricity. It argues that rehabilitation costs and damage to the ecosystem are being grossly underestimated in feasibility studies prepared by State authorities.

The proposed 220 MW dam on the Bedti river in southwest India is an example of how cost-benefit analysis can be manipulated. A farmers' cooperative in the nearby town of Sirsi whose areca nut and pepper plantations will be submerged by the dam's waters claims to have discovered serious shortcomings in the detailed project reports prepared by the Karnataka Power Corporation.

In the case of the Tehri dam, already under construction in the Himalayan foothills, local environmentalists have warned of the dangers in the event of a major earthquake, because the dam and the lake it will create lie in a seismic zone.

In south India a protest against the Silent Valley hydro project was sparked by the threat the project posed to the tiny remaining, genetically rich, tropical evergreen forest in the country.

The Indravati dam in Orissa will submerge 59 villages, displacing many tribal families, and submerging 33,000 acres.

CSO: 5000/7030

EDITORIAL NOTES DANGERS OF GANGES POLLUTION

Calcutta THE STATESMAN in English 28 Jan 83 p 8

[Text]

According to recent studies conducted by West Bengal's Water Pollution Board the bacterial count of the water of the Ganga between Uluberia in Howrah district and Diamond Harbour and beyond has shown an alarming increase, having gone up by about 300 per cent over previously recorded figures. The water is now considered unsafe even for irrigation purposes, and the authorities have warned that unless drastic remedial steps are promptly taken the situation may become irretrievable. Congested areas in U.P., particularly downstream from Kanpur and Allahabad, have also recorded extremely high water pollution counts. Studies undertaken by the Central Pollution Control Board, which since 1979 has been monitoring the 2000-km stretch of the Ganga from Hrishikesh to Diamond Harbour, indicate that the dumping in the river of untreated domestic sewage and industrial effluents has increased despite the existence of anti-pollution legislation and the periodic official warnings. A major source of riverine pollution is said to be the large number of khatalas in urban areas. Livestock waste breeds far more bacteria and contributes more to turbidity than untreated domestic sewage. But despite repeated drives, unauthorized khatalas in Calcutta and other areas have proliferated.

The crowded melas along the Ganga also contribute

significantly to pollution. A mobile laboratory of the CPCB which measured the water pollution count at the recent Ganga Sagar mela discovered that the bacterial content of the water rose sharply as the pilgrims began to arrive, eventually reaching a figure of over 9,000 organisms per 100 ml, which far exceeded the level considered safe for bathing, which is 500 per 100 ml. Experiments conducted by the Board at the Ardh Kumbha Mela at Prayag in 1981 showed that a 72-hour pre-chlorination programme kept the bacteria count to acceptable levels and this treatment has been recommended for all such occasions. The problem of untreated domestic sewage is likely to prove less tractable. While admitting the urgent need for Calcutta Corporation and the municipalities to instal sewage treatment plants, the West Bengal Minister for Local Government and Urban Development is on record as having said that it would be "too much to ask them to do it in view of their financial difficulties". However, resignation as a result of such constraints cannot be afforded either. The CPCB has recommended that in the dry season the flow from Farakka into the Bhagirathi-Hooghly channel be increased from the present 12,000 cusecs. Another suggestion is that fisheries be introduced between municipal outlets and the river to act as initial low-cost waste stabilization systems.

CALL FOR JOINT APPROACH ON ENVIRONMENT

Nairobi THE STANDARD in English 22 Jan 83 p 2

[Text] The problems of environment degradation, soil erosion and deforestation required the joint effort of the various Ministries and nongovernment organisations to find a solution through a coordination of activities which could bolster the national conservation campaign.

The Chairman of the Permanent Presidential Commission on Soil Conservation and Afforestation, Mr Z.M. Anyieni, said this while lecturing at Egerton College on "The Activities and Impact of the Commission in Environment Management to Promote Development and People's Welfare."

Threatened

He cited road construction as a destructive force and said it was a problem conservationists had to contend with in national development.

Mr Anyieni said the country's natural resources were increasingly threatened by improper use, resulting in decreasing soil facilities and destruction of forest and shrub, particularly in water catchment areas.

The Commission was analysing the root causes of the problems with a view to halting its momentum and rehabilitating the environment, he said.

He added it was his Commission's conviction that Kenyans must be aware of the problem so as to join hands in implementing various collective measures. This, he said, was the only way to avoid the disaster which the future generation may face following the depletion of soil and forests.

CSO: 5000/96

LESOTHO

BRIEFS

DROUGHT DISASTER THREAT--The drought in Lesotho has reached such proportions that the country faces a national disaster, the Minister of Agriculture, Mr Peeta Peeta, said in Maseru yesterday. Hardest hit of the country's 10 districts are Mhaleshoek, Mafeteng and Quthing in the south and the mountain areas of Quachasnek, Mokhetlong and Thabatseka in which there will be "dangerous shortfalls" of food. Because of the situation the Government had decided to impose restrictions on the importation of cattle.--Sapa [Text] [Johannesburg THE CITIZEN in English 17 Feb 83 p 8]

CSO: 5000/100-E

DROUGHT DESCRIBED AS 'WORST OF CENTURY'

Johannesburg SUNDAY TIMES in English 6 Feb 83 p 15

[Article by Bevis Fairbrother]

[Text]

THE relentless, two-year drought, said to be the "worst of the century", is ruining farmers.

Many, near bankruptcy, are seeking credit on credit to pay multi-million rand loans.

Crops are burning up and livestock are dying.

Even with a good rainfall now agricultural experts doubt if it will help the situation.

The damage has already been done and will be felt for years to come.

Effects

Yet, when will the consumer, the man-in-the-street, feel the effects?

Apart from gardens and swimming pools suffering as a result of water restrictions, there has been little evidence that the drought will affect his pocket or the pantry.

But it will come, Mr Johan Willemse, chief economist for the South African Agricultural Union, has warned.

Winter is likely to be a hard and cold season for all.

The next few months will tell whether there will be a drastic shortage of grain and whether the country will have to import.

"Normally the stabilisation fund would pay for the imports.

"But, because of this drought which I would say is the worst of the 20th century, the farmer certainly needs more help than the consumer.

"There is a very good chance that there will be a price increase in the next few months," said Mr Willemse.

He predicted that there would also be a shortage of dairy products in the near future.

"There is not enough fodder for the animals to last the winter."

Although there was a good supply of meat at present, good cuts were scarce as farmers were marketing all their "bad animals" before the winter.

There was already a shortage of fresh fruit and it would grow worse with plantations dying in the lowveld.

Maize was more hopeful. Although farmers were cutting maize for fodder there was still hope the crop would be able to meet the domestic market.

"Consumers don't realise the problems yet but this drought will be felt well into 1984.

Upturn

"We expect an economic upturn next year with greatly increased demand for food. But the farmers will not be able to supply," said Mr Willemse.

Mr Jasp Wilkens, president of the agricultural union, said that it was thanks to the much maligned co-operative marketing systems that the consumers would still not feel the full effect of the drought.

"There is a tendency, particularly in the good years, to criticise the co-operatives and marketing boards.

"No thought is then given to the fact that these organisations were in fact established with the view to poor years."

The co-operatives now had to bear the brunt to help farmers through the financial crisis caused by a second consecutive drought.

Selling

"Farmers no longer have any security. Some are even selling tractors to raise loans," said Mr Willemse.

The union was presently busy with surveys and hoped to present a report of the situation to the Government in March.

"We hope to present a rescue operation, something that will stop the downfall of many of our farmers," said Mr Willemse.

Figures obtained from co-operatives showed that last year there was a credit increase of R911,2-million — about 60 percent up on the previous year.

This year credit to the producer increased by a further R245,7-million.

Last year farmers were still left with a R369,6-million debt even after their harvests were marketed.

It was a drop in income of about R700-million.

It was expected that this year would be worse.

The result would be that farmers would have no fixed income for several years to come.

IMPACT OF DROUGHT ON FARMERS DESCRIBED

Johannesburg THE CITIZEN in English 1 Mar 83 p 3

[Article by Fanie Hattingh]

[Text] **The drought has reached such critical proportions that farmers are facing what some say will be the most difficult period since the great drought and depression of 1933.**

An extensive survey conducted in the Transvaal has elicited a sombre picture:

- As a result of the drought and other factors, farmers are deeper in debt than ever before.

- Maize, sorghum, ground-nut, dry bean and potato farmers are expecting a crop of slightly over 35 percent.

- If it does not rain soon, banana farmers in the sub-tropical areas are bound to have a bad crop next year.

- Stock-farmers are facing the most dismal winter season in memory.

A spokesman for the SA Agricultural Union said in Pretoria yesterday that the situation had become so critical that steps were being

taken to place the Government in possession of all the facts.

The executive committee, general board and co-operative Board of the union are to hold a series of meetings from March 7 to 10 to discuss the situation and to consider what representations should be made to the Government on behalf of the farmers.

Surveys

Co-operatives throughout the drought-stricken areas are busy with surveys and while no figures are available yet, spokesmen for most co-operatives have described the situation as being "desperate".

In most areas, rain within the next week or so would achieve little more than pulling through the severely diminished crops of maize, dry beans, sorghum, ground-nut and potatoes.

With so little of the summer growth period left, even good rains would achieve little in improving the winter grazing, with the result that stock-farmers are

entering their most critical winter season in almost 50 years.

Fruit farmers in the Far Northern and North Eastern Transvaal are picking fruit at the moment, but are suffering heavy losses as a result of sunburn and lack of moisture.

Banana Problem

Banana farmers are facing an additional problem: suckers being formed at the moment are essential to the next crop, and if it does not rain soon there is a strong possibility of a failed crop next summer.

Farmers who do not derive their water from irrigation schemes have been left without water altogether. And this under a burning sun...

In the Eastern Transvaal the situation has also reached a highly critical stage. Witbank has already been declared a drought-stricken area, and other towns —among them Middelburg, Amersfoort, Volksrust, Greylingstad, Nigel, Bethal, Platrand and Perdekop — have applied to be declared drought-stricken areas.

North-Western Transvaal farmers are equally in a quandary. Some ground-nut farmers have begun harvesting prematurely because the plants have dried out completely, while others have simply written off their crops as a complete loss.

Many farmers are turning their crops into silage for winter, and are selling off surplus stock which they will not be able to feed.

In the Northern Transvaal area bounded by Pretoria, Marble Hall, Messina and the Botswana border, the smallest maize crop in years is expected.

Many farmers have taken a chance by sowing their winter wheat-crop on dry lands, hoping that they will be saved by late rain.

Cattle farms in the area have been left desolate after farmers moved their stock elsewhere. Where the stock has been taken to, remains a riddle to other farmers.

Already debt-ridden, they fear that the situation can only worsen during the coming winter.

DEVASTATING DROUGHT HITS BAZANKULU

Johannesburg RAND DAILY MAIL in English 10 Feb 83 p 3

[Article by Harry Mashabela]

[Text]

GAZANKULU in the Northern Transvaal is in the throes of a devastating drought which has left the countryside littered with thousands of carcasses of dead cattle lying in a desert landscape.

And, if it does not rain in the next month or two, livestock in neighbouring Lebowa — especially at Bochum, north-west of Pietersburg, Dwars River, near Soekmekaar, and in Sekhukhuneland, south east of Pietersburg — will be destroyed, too.

In Gazankulu, the situation is very bleak. The Chief Minister, Professor Hudson Ntsanwisi, said yesterday 30 000 head of cattle had so far been lost. Damage estimated at more than R12-million had been caused.

Only a miracle can save the thousands of other cattle still listlessly roaming the territory, desperately searching for grazing or water.

The drought has reduced remaining cattle to mere skeletons. The land has been reduced to long stretches of bare gravel.

Prof Ntsanwisi said the territory had also lost about R14-million. Landowners have had no crops for the past two years and farmers have had to retrench workers as a result of the drought.

His government needed at least R4-million over the next 12 months to help the community.

Dr Cedric Phatudi, Chief Minister of Lebowa, described the drought situation in his territory as "very serious and frightening".

Representatives of both the Lebowa and Gazankulu governments would be meeting officials of the Central Government in Pretoria today to appeal for financial aid for their territories now suffering under blistering drought.

People in Gazankulu told the Mail that when cattle died they took only the liver and rump, discarding all else because the rest was mere bone, with no meat left.

For the past two years, rural communities in Gazankulu and Lebowa have had no crops and the people are now suffering from hunger and lack of water.

The high cost of living and chronic unemployment are making matters worse.

Prices of foodstuffs in local stores are prohibitive. An 80kg bag of mealie meal costs between R25 and R27,75; 50kg of mealie meal R18; 2,5kg of sugar R1,70; 300g of tinned beef R1,40; fish between 68c and 88c; condensed milk 98c (large tin) and 73c a small tin.

Even fruit is expensive. Tomatoes, bananas and mangoes in the Tzaneen and Trichardsdal districts cost between 10c and 20c each. Inhabitants said potatoes were "very scarce". Before the drought a mango cost 5c, tomatoes from 3c to 4c each and a banana 2c.

Private medical doctors serving communities in the region told the Rand Daily Mail that food deficiency and water-borne diseases were the biggest problems among inhabitants.

Malnutrition was common among children and pellagra among older children and adults, especially alcoholics. Even breastfed children were suffering from malnutrition because of the "poor quality of milk" they got from their mothers.

The main water-borne diseases, among them typhoid and bilharzia, were causing diarrhoea and vomiting. Other infections — mainly among children — were polio, measles and chest and eye ailments, said the doctors.

Sexually transmitted diseases such as gonorrhoea and syphilis had become common among people in the villages, too, they said.

HUGE CROP LOSS FEAR IN NATAL DROUGHT

Johannesburg THE CITIZEN in English 24 Feb 83 p 10

[Text]

DURBAN. — Natal is facing an overall estimated 90 percent crop loss as the intense drought and searing heat shows no sign of abating.

"Gloomy" summed up the feelings of the various welfare bodies in agricultural unions interviewed by The Citizen this week over the drought situation in the province.

Several agricultural co-operatives estimate that the drought could have caused as much damage to produce a 90 percent crop failure — and this applied to all crops.

The hardest hit appears to be the maize crop. In several areas of Natal and Zululand the intense heat has virtually burnt away huge areas of maize.

The Natal Agricultural Union is still not in a position to give an exact figure of the maize crop loss but at this stage it is expected to be down about 45 percent on last year.

The average yearly yield for the province is

about 343 000 tons but estimates at this stage indicate that the yield will be only about 55 percent of this figure.

The prolonged drought is also causing serious problems in Northern Zululand where water rationing has been introduced everywhere. There are fears of a disease outbreak in the Golel area because of the low level of the Pongola River.

However, the Regional Water Board in the province is attempting to improve the situation by releasing as much water as possible from the Pongola port dam.

The drought is really biting residentially in the Pietermaritzburg area. Here, a complete ban has been imposed on the use of hosepipes to water gardens; but in spite of this there has only been a seven percent drop in water consumption.

A spokesman for the Pietermaritzburg City En-

gineer's Department commented yesterday that the low reduction figure — the target is 10 percent — meant that "irresponsible" residents were still watering their gardens in the evenings.

He said these people were being extremely foolish because the situation in the level of the Midmar Dam, one of the two dams which supply the city, was critical. It has been estimated that unless really heavy rains fell shortly the dam could be at its lowest level ever in about 120 days.

The heavy rains on the Natal South Coast in the past few days have eased the overall position in the sugar belt there. But, according to a spokesman for the South African Sugar Association, it would take at least another four heavy downpours — say a rainfall of 50 mm each time — for the cane crop to come right.

ZULULAND TOWNS ASK FOR TRUCKS TO FERRY WATER

Johannesburg THE CITIZEN in English 23 Feb 83 p 12

[Article by Tim Clarke]

[Text]

THE South African Transport Services have been asked to make trucks available to ferry water to various towns in northern Zululand because of the severe drought.

Farmers in the area said the situation was so serious that hundreds of workers have had to be paid off.

Several farmers told The Citizen this week that there was "simply no work" because the searing heat of the past three months had drastically curtailed farming activities.

Many of them said they were "barely keeping body and soul together" and had been forced to pay off labourers who had worked on their farms for many years.

With the Pongola River at its lowest ebb in 38 years, farmers have also been forced to cut back on drawing water from

the river for irrigation.

Towns in the area have stopped drawing water from the river because it is suspected the water could have been polluted by a large number of dead fish.

South African Transport Services have agreed to ferry water from Richards Bay to Golel, near the Swaziland border, which is virtually running dry. There is little drinking water in the town and no water available to use on gardens.

The SA Transport Services have also been supplying water to Luvamisa, a town of 4 000 inhabitants in Swaziland.

Farmers in the Pongola area say the water in the river beyond the weir has been reduced to a trickle and the need to build a dam in the area was now great.

They said they hoped the Government would take notice of the serious situation in the area.

CSO: 5000/113

RIVER POLLUTION HITS KRUGER PARK

Johannesburg THE STAR in English 10 Feb 83 p 1M

[Article by Clyde Johnson]

[Text]

Polluted silt has all but sterilised the Olifants River in the Kruger National Park in what has been described as the Lowveld's worst fish kill in 75 years and only barbel are known to have survived.

The park's Chief Warden, Dr Uys de V Pienaar, who described the incident as "catastrophic," said the ecology of the Olifants valley may take decades to recover.

"We are netting the river to determine our losses. It appears pollution may have wiped out the majority of the 20-or-so species of fish in the river."

The stench of death has drifted to Satara rest camp 75 km away.

Visitors and staff at Satara and Olifants camps were unable to use domestic water until it had been treated. The major cause of the pollution disaster is apparently contaminated silt from the dam outside the park.

Thick sludge impregnated with heavy metals that are lethal to fish is clogging much of the river. The pH reading is 2.9 — about the acidity of vinegar.

The Department of Water Affairs is investigating what it describes as the worst fish kill in 65 years. The last fish kill was in the 1920s when small gold mines near the headwaters of the Sabie River polluted the water with mercury.

Dr Pienaar said 80 years of conservation and preservation had been lost and every part of river life had been affected.

Eels which lived in the river for 20 to 30 years had died and hippo had been deprived of their habitat because pools had silted up.

Precautions

The reason for the acid and metal pollution was still a mystery but Dr Pienaar said it was important the guilty parties be traced as quickly as possible.

They must be suitably prosecuted and strict precautions must be taken to avoid a repetition of this disaster.

Water Board officials at Phalaborwa yesterday refused to comment on the incident because it was considered a domestic matter.

The Star was referred to the Water Board's chairman, Mr Louis Fourie but he could not be contacted.

● The Levuhu River which runs through the wildest area of the park — the Pafuri — is under threat from pollution because of planned coal mining in Venda.

● The Lower Sabie is threatened continuously by depleted water. It is being tapped more and more by development outside the park and is also periodically contaminated by pesticides washed off agricultural land. Most of its fish carry residues of pesticides.

DETAILS ON VAALDAM, STERKFORTEIN DAM GIVEN

Johannesburg THE STAR in English 2 Feb 83 p 8

[Article by Hannes Ferguson]

[Text]

Your drinking habits are safe. Johannesburg will have enough water for another century. It will cost you more and more, but it won't be so bad that you will have to insure your water against theft.

Vaaldam now holds 42 percent of its capacity, or 920 million cubic metres (mcm). Annual consumption is about 1 800 mcm, or 150 mcm a month. Inflow — at its present abnormal low — just makes up for evaporation.

The dam may stop supplying water when it is down to about 400 mcm, which means there is little more than three months' supply left.

What do we do if there are no good rains before winter?

Nothing — except order water from the Sterkfontein Dam. 250 km away on the Drakensberg escarpment beyond Har-rismith. This dam can store another 1 200 mcm and now holds about 800 mcm. If need be, water will run along the Wilge River to Vaaldam and, from there, into your kitchen.

Will it be needed? Usually late rains fill Vaaldam to a safe level but, one day, one year, a drought will empty it and Sterkfontein will rescue us.

Next year will be better. Vaaldam is being raised by six metres to increase its capacity from 2 191 mcm to 2 529 mcm. At Sterkfontein Dam the big earth wall is being raised from 63 m to 93 m, boosting its capacity to 2 659 mcm — even more than the enlarged Vaaldam.

At Sterkfontein water is stored safely, the dam is so deep that evaporation is only a fifth of that at Vaaldam.

Sterkfontein water comes from Natal — out of the Tugela River to quench your thirst in Johannesburg.

The beauty of the scheme is that every drop imported from Natal will grow to two-and-a-half drops at the Vaal River Barrage where the Rand Water Board diverts your water.

This is possible because the Sterkfontein water

reserve enables the Directorate of Water Affairs to operate Vaaldam at a high risk of supply failure. It can now safely allow the level of the Vaaldam to drop to 20 percent of capacity. Thus the average water level of the dam will be much lower than before, exposing less water surface and greatly reducing evaporation. And, by having more spare capacity, Vaaldam can trap far more floodwater for beneficial use.

Vaaldam boating enthusiasts will have to cope with wide fluctuations in the water level. But the 347 mcm of Tugela water received at Sterkfontein boost the safe yield of the Vaal River dams by 800 mcm annually to a total of 2 345 mcm. This will be adequate until 1992.

How is this done? Natal is way down below the escarpment.

In 1974 a barrage was built in the Upper Tugela River at Driel, near Bergville, with a pump station forcing the water through a large pipe to a high point four kilometres to the west.

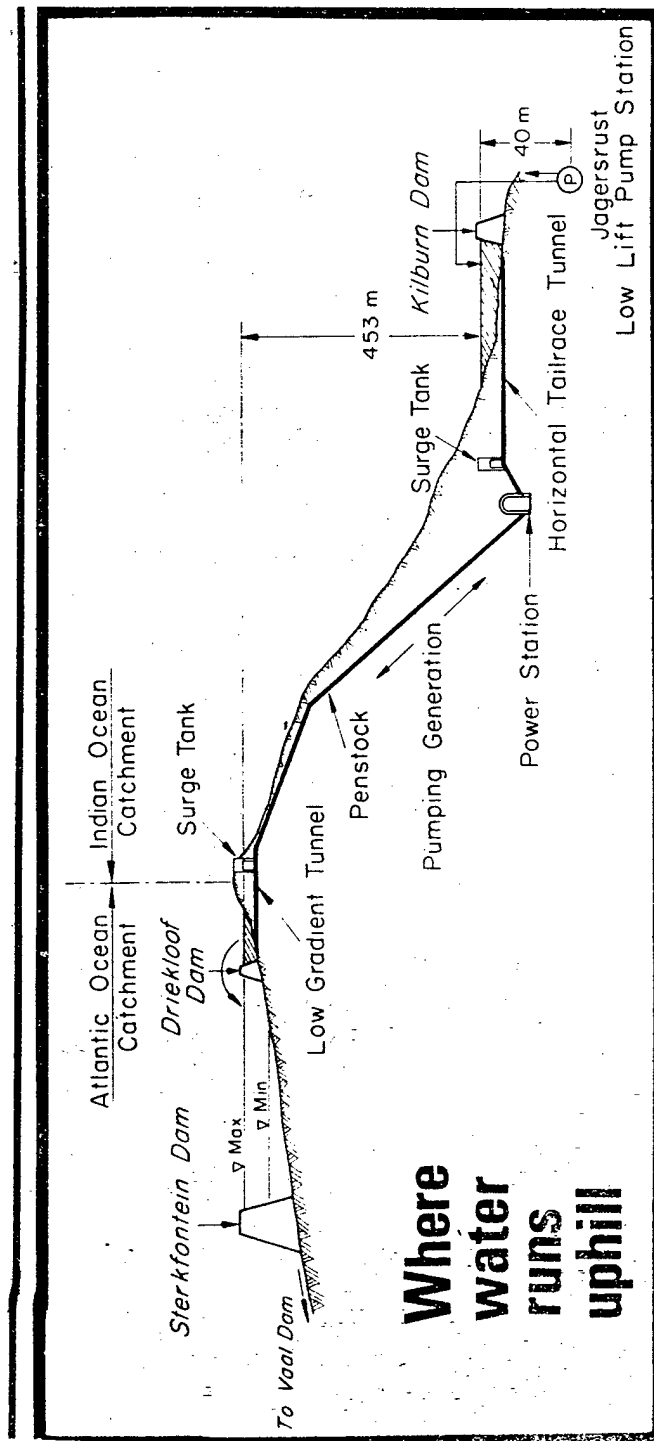


Diagram of the water lifting scheme.

From there, the pumped Tugela water runs by gravity along a canal to a low point on Jagersrust Farm, near the foot of the escarpment.

There the Directorate of Water Affairs used to operate a second pump station, lifting 130 mcm annually, 492 m up into Sterkfontein Dam beyond the watershed.

The present larger scheme lifts about 347 mcm annually by making use of a large water battery run by Escom.

The combined scheme is a technical marvel, based on the peaks and valleys of daily electricity consumption from Escom's national power grid. Adjusting the generation of power to the hour-by-hour pattern of consumption is a costly job mainly done by starting up expensive coal-fired power stations during peak periods.

This can be done by the water battery at Sterkfontein more cheaply. Every day, for a 10-hour period when power demand is slack, Escom pumps 9 mcm from the Kilburn reservoir, adjoining Jagersrust, up the Escarpment, into the Driekloof reservoir, which is a walled-off compartment of Sterkfontein Dam.

Every hour a million power units are taken from the power grid to do this. Then, during a peak period of nearly 10

hours, 12 mcm of water are run down the pipe again to generate electricity, putting power back into the grid when it is needed most.

So the same water flows up and down the mountain in a daily rhythm.

The four giant motors and pumps used to bring the water up during the pumping phase are simply reversed and function as turbines and generators in the generating phase.

Starting with Driekloof full on Monday mornings, it is empty after the fifth generating phase on Friday nights. Then Driekloof is filled again on Saturdays spilling over into the rest of Sterkfontein Dam for 10½ hours every day.

In this way Sterkfontein sets 347 mcm annually for Vaal and Escom evens out part of its power fluctuations by operating the pumped storage scheme.

Taking into account a large dam at Woodstock, above Driel, to regulate the Upper Tugela and another near Spioenskop to stabilise the river downstream, the whole series of works cost the taxpayer R600 million.

By building an additional floodwater dam below Spioenskop, water from Spioenskop Dam can also be used to augment Vaal. The pumping time at Escom's water battery will then be extended. This will quench

Johannesburg's thirst until around 2000.

The next stage will be to pump water from the Hendrik Verwoerd Dam on the Orange River all the way up to the Reef and, after that, Johannesburg will have to look to new, cheaper seawater-desalting technology. This will be the ultimate solution.

At some stage the city will have to embark on desalting its water to protect the ecology of the Hartbeespoort Dam system into which its sewage is now dumped. This will cost R1 200 million in capital outlay at 1982 prices.

Another R800 million may be earmarked for progressively re-cycling

Johannesburg sewerage water. Both schemes together will mean a burden of between R1 and R2 a cubic metre of water in capital costs, or 30c to 60c a cubic metre as a current charge. It will mean doubling or tripling the present water charge of 30c.

That is not counting the outlay for the extended Tugela scheme, the still uncharted Hendrik Verwoerd Dam water supply system, or the de-salting of ocean water.

It does not seem realistic to expect the country as a whole to continue to foot most of Johannesburg's water supply bill for ever.

BRIEFS

FIRES DESTROY CAPE VELD--Cape Town--Forty separate bush fires have destroyed 82 000 hectares of veld in the southern and southwestern Cape in the past four months, the Administrator of the Cape, Mr Gene Louw, said at the weekend. Speaking at the opening of an environmental education centre at the De Hoop-Potberg Nature Reserve near Bredasdorp, he said an average of 700 hectares a day had been ravaged by fires which, in most cases, were caused by human error or negligence. The education centre will provide courses in ecology and conservation for schoolchildren, student teachers and youth leaders. Mr Louw said control and development of the Cape's long coastline was complicated by overlapping bureaucracy. Local authorities could therefore not exercise complete control over the large-scale removal of bait for commercial purposes. "We are powerless when a permit not issued by us allows the permit holder to remove half a ton of red bait a month over 50 km of coastline, of which 16 km falls within the nature reserve." The nature reserve's coastline should be closed to such permit holders and the province should be allowed to exercise complete control over the removal of bait from the nature reserve's coast. He also expressed concern over the Southern Cape's unique fynbos which is being destroyed by intensive urbanisation and modern agricultural practices.--SAPA [Text] [Johannesburg THE CITIZEN in English 21 Feb 83 p 8]

PIETERMARITZBURG WATER CURBS--Pietermaritzburg residents are now facing some of the toughest water restrictions in the history of the Natal capital as the city council does everything possible to conserve the dwindling water supply. At a meeting of the works committee of the council on Wednesday evening it was decided to place a complete ban on the use of hosepipes for watering gardens. A council spokesman said yesterday that a notice will be published on Tuesday, prohibiting the use of hosepipes for watering gardens and lawns and restricting the filling of swimming pools to between 5 pm and 7 pm on Wednesdays. The ban on hosepipes, however, will not apply to Government, municipal and commercial nurseries. The watering of turf wickets, bowling greens and golf greens will be allowed between 9 am and 11 am on Mondays and Fridays. There will also be a ban on sprinklers and the use of hosepipes for washing vehicles. The works committee decided on the drastic restrictions after hearing a report from the city engineer, Mr Graham Atkinson. He said that the level of the water in the dams supplying the city, the Midmar Dam and the Albert Falls Dam, was cause for grave concern. At present residents are allowed to water their gardens with hosepipes between 2 pm and 6 pm on Wednesdays and Sundays. [Text] [Johannesburg THE CITIZEN 18 Feb 83 p 11]

NATAL DROUGHT CRITICAL--The drought is so critical in Northern Natal that at least six towns have now imposed severe water restrictions. The worst affected area appears to be at Vryheid where restrictions have been in force for two years. A spokesman for the town council said yesterday that the situation was "desperate". He said that he believed local residents were playing the game in conserving water but that the "terrible heat" was sapping all available water supplies. He pointed out that one of the two dams supplying the town with water was now only 10 percent full. It has been decided to stop drawing water from the dam. Water restrictions have also been enforced this week in the two mining areas of Clifdale and Vaalbank near Vryheid. There are big coal mines in the area and the continuing drought could affect production. Water restrictions are also in force at Dundee, Glencoe, Newcastle, Paulpietersburg and Utrecht. The maize crops in these areas have almost all withered away from the fierce heat and the grazing situation is also critical. [Text] [Johannesburg THE CITIZEN in English 18 Feb 83 p 11]

OFS CANAL--Cape Town.--The Government has decided to go ahead with the construction of a R60-million canal scheme between the P K le Roux Dam and the drought-stricken Rietrivier area in the southwestern Orange Free State. This decision had been taken despite severe financial restrictions, the Minister of Environmental Affairs and Fisheries, Mr Sarel Hayward, said in a statement issued in Cape Town. The Rietrivier area was experiencing an exceptional drought period and the Kalkfontein dam had only been able to meet requirements to a very limited extent for the last few years, he said. "This dam presently contains less than 3 percent of its capacity and no water could be released in the current season." The irrigation farmers in the Rietrivier water scheme were experiencing serious socio-economic problems and financial aid was already being given to them. After the Department of Environment Affairs, in co-operation with the Department of Agriculture, had considered various possibilities to improve the situation, it had been decided to go ahead with the construction of the canal scheme despite severe financial restrictions, Mr Hayward said. The scheme will form part of the proposed Orange River project. It consists mainly of a pump station and an ascending conduit at the end of the Vanderkloof scheme's existing rightbank main canal, as well as a canal of over 100 km to the Rietrivier area, and a number of regulating dams. "The estimated cost of completing the scheme at present prices is about R60-million and it is intended to start construction in April 1983," Mr Hayward said.--Sapa. [Text] [Johannesburg THE CITIZEN in English 28 Feb 83 p 5]

WINTER WATER CRISIS--South Africa, could face a serious water shortage this winter unless the situation improves, a spokesman for the Department of Environmental Affairs said yesterday. "The whole issue of urban water restriction is in the pipeline but no final decisions have been taken," he said. The big suppliers of water, for example the Rand Water Board, have been asked to cut down their supply of water to various reef towns by five percent. "Municipalities have shown a willingness to help, and are imposing restrictions," the spokesman said. So far, the watering of gardens in Johannesburg and surrounding reef municipalities have been restricted. The level of some South African dams is at an all-time low, and the latest statistics show that several areas are already in trouble, notably the Chelmsford area in Natal. The situation in some areas in the north-western Transvaal and the Free State is "very serious". The water flow in the Vaal River is at an all-time low,

but ironically the country has more water than last year because of the commissioning of a number of new dams. Water for irrigation has been cut to a very large extent, with the farmers' quota having been restricted to "get them through this year and into the next". [Text] [Johannesburg THE CITIZEN in English 1 Mar 83 p 8]

DROUGHT AID PLANS--The standing committee of inquiry into the economic position of farmers and the supply of agricultural produce has been instructed to lay recommendations before the government before the end of the next month to enable the government to consider further assistance to agriculture. The minister of agriculture, Mr Greyling Wentzel, said in Cape Town that the government was aware that the extent and intensity of the present drought would have a serious medium- and long-term effect on agriculture. That was why the government had instructed the Jakobs Committee to prepare its recommendations. Mr Wentzel said in a statement that he had informed the cabinet of the most recent developments in the drought and of the fact that conditions were deteriorating daily. The cabinet has given approval for the immediate future for continued implementation of existing drought aid schemes, and wherever necessary these schemes may be adapted to cope with the situation for the present. The government reaffirmed its determination to assist farmers in these difficult times. A further announcement on additional aid would be made as soon as possible. [Text] [MB240850 Johannesburg Domestic Service in English 1115 GMT 23 Feb 83]

DROUGHT AID--Cape Town--The Government had instructed the standing committee of investigation into the economic position of the farmer and agricultural finance in general (the Jacobs Committee) to make recommendations before March 31 to enable it to consider further measures to aid farmers in drought-stricken areas. Announcing this in Cape Town yesterday, Mr Greyling Wentzel said he had informed the Cabinet fully about the dire drought conditions as well as the fact that the situation was deteriorating daily. "The Government is concerned about the state of emergency that has developed in agriculture, especially in certain areas, and has noted the steps already taken to determine the exact situation and its implication. "The cabinet has agreed, as far as the immediate future is concerned, to the continuation of existing drought assistance programmes and that these schemes be adapted wherever necessary. "The Government wants to assure the farming community of its assistance in this difficult time. "A further announcement about additional aid measures will be made as soon as possible," Mr Wentzel said.--Sapa [Text] [Johannesburg THE CITIZEN in English 24 Feb 83 p 16]

CSO: 5000/111

DROUGHT EXPECTED TO REDUCE SUGAR CANE YIELDS

Mbabane THE TIMES OF SWAZILAND in English 7 Feb 83 pp 1, 16

[Text]

SUGAR cane yields in the lowveld are expected to drop by five per cent because of this year's drought.

This will mean a shortfall of more than E1 million in farmers' gross income.

The general manager of the Swaziland Irrigation Scheme, Mr. Dave Clark, confirmed that sugar cane farmers already anticipated the five per cent drop this season.

"The drought situation in the catchment of the Komati River both in the Republic and in Swaziland, remains extremely serious for local consumers of irrigation water from the Komati River," Mr. Clark said.

He added: "Although rain has fallen locally in Tshaneni and Mhlume during Januazry, the flow of the Komati River remains very low. Whereas from the 1965-83 records the flow of the river during January has averaged 1,6000 cusecs, during January the average flow has been only 382 cusecs."

According to Mr. Clark, rainfall for January 1983 had been 200 mm against the long term average of 129mm. The rain had resulted in the sugar cane

crop being saved from almost certain disaster for

1983. Further rain was required locally during February and March to ensure that the loss of yield did not increase.

"Very strict water rationing has been introduced and consumers of water are now only 25 per cent of their total requirements," Mr. Clark told The Times.

He said the rationing was necessary to ensure that the water in the Sand River Dam was used to best advantage with the presently predicted unreliability of the Komati River in the coming winter.

The drought situation in Southern Africa is worrying many leading personalities involved in water resources.

The senior water resources engineer in the Ministry of Works, Power and Communications, Mr. Tom Brook, has said that unless the country received sustained rainfall during February and next month, the dry season could be critical for many irrigators.

He said the whole of southern and eastern African was affected by the drought in varying degrees.

All the river flows were lower than they had been in many years and the situation was very serious.

Mr. Brook has revealed that South Africa had already released to Swaziland 10.5 million cubic metres from Vygeboom Dam over several occasions since last August. Meanwhile, The Lowvelder newspaper of the Transvaal has reported that the Water Research Commission has initiated a four-year scientific rainfall stimulation project in the Nelspruit area.

The Lowvelder, said the project was designed to determine whether potential existed for rainfall stimulation in the area around Nelspruit.

The Swaziland government is not involved at all in the project, although the Kingdom would be interested in the results.

A senior government official told The Times: "This is a very very expensive project. You have to pay for the plane and the silver iodide used. A lot of work has been done all over Southern Africa, but this scheme has not been proven anywhere in the world."

DROUGHT IN MANICALAND TERMED 'DISASTROUS'

Harare THE SUNDAY MAIL in English 13 Feb 83 p 3

[Text]

THE lush green "undrought-stricken" area of Inyanga and areas immediately surrounding it provide a striking contrast to the generally arid conditions in Manicaland.

For in the mountains, there has been enough rain to keep fields green, while farther west, south and north, Manicaland is suffering from a drought that has killed cattle and crops alike, as well as a few people.

Although in the mountains the streams are still flowing, farther south, the Sabi River that provides the Lowveld with water has stopped flowing altogether.

The whole of the Sabi Communal Land, Marange, south of Changadzi, east of Birchenough Bridge and the Inyanga District are reported as being among the worst affected areas.

The acting provincial agriculture and extension officer in Agritex, Mutare, Cde Mike Mariti, said last week: "The lucky ones in Manicaland will reap only two or three bags, where in a normal year most communal farmers would

Others, despite replanting, will not be so lucky.

Harare's Assistant Director (Field), Mr Munetsi Pswarayi, said: "It's a disastrous situation. And no decision on help has been made for people living in these areas."

He suggested small farmers should sell their old cattle and keep only the hardier young ones.

"Even if we do get a little rain, the grass that grows will not feed all the cattle," he said. "Farmers should get rid of their old stock and keep just the young. That way there should be enough food for the young without having to feed old stock."

He also said there was no reason why cattle should be driven to resettlement areas because in the end many cattle would be lost that way.

But it is not just the outlying areas of Manicaland that have been hit severely by the drought.

The Mutare City Council recently restricted water use.

Residents in the town are not allowed to use hosepipes or sprinklers and they cannot wash their cars.

Any abuse of these restrictions means a \$1 000 fine.

The City Engineer in Mutare, Mr Mohindar Khosla, said that although Lake Alexander, which supplies all the water to Mutare, was not as low as it was in 1973 (59.7 percent full), it was rapidly approaching that level.

"Lake Alexander is now 64 percent full," he said. "When it reaches 60 percent, the council will have to place further restrictions on the use of water."

Since the restrictions had been imposed, daily water consumption had been cut from 27 000 m³ to 22 000 m³.

"But in December last year, the dam was 77 percent full," said Mr Khosla. "In the past few months, more than 13 percent of the water from Lake Alexander has been lost."

"We are just waiting for the Ministry of Water Resources and Development to come to a decision before imposing sterner water restrictions."

NFAZ LISTS DROUGHT AREA PRIORITIES

Harare THE HERALD in English 18 Feb 83 p 6

[Text]

A LIST of priorities covering areas of immediate concern in drought affected communal areas has been drawn up by the president of the National Farmers' Association of Zimbabwe, Cde Robinson Gapare.

Top of the list is a call on the Government to seriously consider giving drought relief to producers in regions most suffering to avoid what Cde Gapare described as "imminent disaster".

He suggested the Agricultural Finance Corporation should allow association members still owing 1981-82 loans to carry them to the 1983-84 season.

"Some farmers have last season's loans which they are unable to pay again," he said.

"A campaign should be launched now to educate them that when they pay back, the loan will have a slightly higher interest."

Grazing schemes, he said, should be started without delay to redress the imbalance being heavily weighted on promoting crop production at the expense of veld management,

Cde Gapare appealed to NFAZ members to sell old stock likely to die of drought and keep young stock for breeding.

"There is real need to convince the farmers that there is wealth in livestock both on hoof and on the hook."

The Government should join hands with the association which has started a vigorous campaign to encourage the farmers to build dams and fence off sponges.

These suggestions were based on a countrywide drought probe by the association indicating severe livestock loss posing serious draught power problems next season.

The Minister of Agriculture, Senator Denis Norman, has told Parliament drought relief was not being thought of at the moment.

Last season Senator Norman announced that drought relief had been scrapped in favour of generous basic producer prices. The alternative would be to reduce price and set up a fund for the not-so-rainy day.

Farming sectors have said they would be fighting for "realistic" prices this season in a bid to prop up battered confidence in the industry.

CFU PRESIDENT ON FINANCIAL IMPACT OF DROUGHT

Harare THE FINANCIAL GAZETTE in English 28 Jan 83 p 1

[Text]

THE drought was a "national disaster" and its financial effect on many commercial farmers had been dramatic, particularly for those in the maize and beef sectors said the president of the Commercial Farmers Union, Mr Jim Sinclair, during an interview this week.

He said that commercial farmers produced 85% of the food marketed in Zimbabwe, and substantially more in drought years which affected communal farmers more than the commercial sector.

During the interview, published in *The Farmer* magazine, Mr Sinclair said droughts in Zimbabwe were not uncommon and he hoped a lesson had been learned from this one.

"Our resilience and determination to withstand this kind of disaster is going to be tested ... and I would ask for Government's understanding on the grave problems we do face."

He said an important lesson to be learned from the drought was that "commercial agriculture is a very important component" in the agricultural-economic mix of Zimbabwe.

"If it was not for the production of the commercial farmer, the communal farmer would be worse off than he is. And certainly the urban dweller needs commercial agriculture to provide him with his staple food. In my view commercial agriculture is crucial. I know that Government, in general, shares this view," said Mr Sinclair.

WARNING

He warned of the effects of the drought, saying we were still not over the worst of it. "I doubt if we will have any food export capacity for some time to come."

Its effects had been "dramatically detrimental" on maize. Cattle would be more of a long-term problem due to "decimation" of the beef herd although in the short-term there would be plenty of beef. There were also serious problems of insufficient water for irrigated crops this winter.

But, said Mr Sinclair, the situation could be worse. The nation could still be fed because of the substantial stockpile of food, particularly maize, which had been built up over the good years.

"But Government must start planning now, and indications are that it is doing so, to ensure adequate supplies of food to people in drought-affected areas. Without our reserves of maize it could have been an even greater disaster."

Referring to "some opposition within Government" to the idea of holding large stockpiles, Mr Sinclair said: "I'm sure this opposition has wilted like our maize crop in the current drought. Food stockpiles in an uncertain climatic environment like Zimbabwe are essential. Anyone opposed to this policy now is obviously incorrect

in his thinking on the food problem."

Mr Sinclair added that in his view the Government must now be looking at how to ensure continued commercial production, particularly from a farmer-viability point of view.

DISCUSSING

"We, the CFU, have our ideas on this subject and are discussing these ideas with Government. Producer prices and food surpluses are all a part of how the future of farming in Zimbabwe is to be determined."

According to the magazine, producer price talks start this week. The CFU is reported to have prepared a "package" for improved producer prices, taking into account the impact of inflation on commercial agriculture which was said to be quite dramatic.

CO-OPS NEED MORE AID TO COPE WITH DROUGHT

Harare THE HERALD in English 4 Feb 83 p 10

[Text]

THE Zimbabwe Producer and Marketing Co-operative Organisation appeals for more aid for some of its 52 fledgling co-operatives hanging in balance because of drought.

The organisation's chairman, Cde Jimmy Moyo, has described the situation on the co-operatives as "extremely serious", adding that achievements made since independence were at risk.

He said considerable damage had been done to crops and livestock, and that the rain which had been falling in some areas had not helped.

Most collectives had no reserves to fall back on as they had put their meagre resources in this season's crops, he said. Some projects could be ruined.

Cde Fred Chilzanga, vice-chairman of Shandisayi Pfungwa Co-operative near Marondera, said drought would deprive the settlement of the hoped-for self-sufficiency in food.

The production manager of Ruponeso Co-operative at Headlands, Cde Elphigio Vambe, said the drought had been a blow.

Drought had wiped out achievements of the past

year which had been made by farmers at Vukuzenzele Co-operative, Zvishavane. The chairman, Cde Sly Masuku, said crops had been ruined and neighbouring communal farmers were battling to get food and water.

The co-operative had been getting vegetables from a garden which had folded as the river which had been supplying water had dried up.

The irrigation scheme at Batsiranai Development Co-operative Society, Shamva, was working under strain and the management committee was thinking of reducing land under irrigation.

The chairman, Cde Tendai Mazorodze, said they were unable to keep up their eight-day irrigation cycle.

At Cold Comfort Co-operative Society, Harare, the chairman, Cde Cephas Muropa, said the situation was bad, but the settlement had other resources to depend on.

He urged the Government to aid co-operatives, which should diversify to beat the drought.

The 52 co-operatives have formed the Zimbabwe Producer and Marketing Organisation, which publishes Vanguard newspaper, edited by Cde Morris Mtsambwa.

DRY WEATHER HITS COTTON YIELD

Harare THE FINANCIAL GAZETTE in English 4 Feb 83 p 3

[Text]

AFTER high expectations earlier this season Zimbabwe's cotton crop is unlikely to reach the hoped-for target 200 000 tonnes. Drought conditions are now affecting many growing areas which are reporting a loss in yield potential.

Early planted cotton in Kadoma area is likely to be 30% to 40% down, according to this week's edition of *The Farmer* magazine.

The mid-Sabi areas report that yields may be down by 15% to 25% due to high evaporation and irrigation problems, but crops in the Lowveld and Midlands are said to be looking good. The estimated overall potential yield loss as at January 20 was 15% to 20%.

The president of the Commercial Cotton Growers' Association, Mr Alistair Davies, said that the late planted dryland crops were standing up well but might require a prolonged season.

Red spider mite was being recorded in the Bindura/Mount Darwin, Marondera, Poorte Valley areas and bollworm in Kadoma, Glendale and Lomagundi. However, pest infestation levels were generally low.

In a previous report published in *The Farmer* early in January it was said that the Cotton Marketing Board was then expecting a crop of 200 000 tonnes, as against the 1981/82 crop of 154 500 tonnes delivered.

The total 1982 crop had been sold with the exception of a few thousand bales being retained for local consumption. Sales to South Africa were continuing at nominal levels as the textile industry in that country was feeling the effect of recession.

But the report said that this position might improve as information from South Africa indicated that the Cotton Co-op, already at a low level due to unfavourable prices, could be seriously affected by drought.

It was at that date confident that it would be able to sell the lint at a "very acceptable price", as Zimbabwe cotton was still at a premium overseas for its high quality and cleanness.

However, *The Farmer* reported this week that on the international marketing scene the general outlook for world prices was "at best obscure with a bearish market" being evident. Trading activity was currently at a low ebb but the Cotton Marketing Board was hopeful of an upturn towards the end of this year.

CSO: 5000/104

BRIEFS

DROUGHT CAUSES CHILDREN'S DEATHS--At least 29 babies in Mutare and Manicaland have died from drought-hastened malnutrition in the past month, the provincial nutritionist Cde Mary Parirenyatwa, said this week. She said 16 babies had died from the disease at the Mutare General Hospital. Ten deaths had been reported at food distribution points and three deaths had occurred at the Bonda Hospital. "The children came to Mutare General Hospital too late and they didn't respond to treatment. The malnutrition was too advanced," she said. About 60 percent of children under five years in rural areas were affected by malnutrition--40 percent of them severely. The number receiving emergency supplementary feeding was expected to more than double from 12,000 to 25,000 she said. Meanwhile, the City of Mutare has introduced compulsory water rationing with fines of up to \$1,000 for offenders, from yesterday. At a closed meeting after its normal monthly session, the City Council adopted special powers to cope with the drought under the Urban Councils Act to impose emergency water restrictions. The notice said: "The use of furrows for irrigating gardens, the use of hosepipes, sprinklers for watering gardens, washing cars and other similar purposes is strictly prohibited." District administrators from the Midlands Province met in Gweru on Thursday to discuss the drought and the establishment of maize distribution centres in their districts, reports our Midlands Representative. Top priority is to be given to Mberengwa followed by Zvishavane, Charter, Mvuma, Tokwe, Kwekwe, Gokwe, Shurugwi and Gweru. [Text] [Harare THE HERALD in English 29 Jan 83 p 1]

DROUGHT PROBLEMS--Water shortages in many parts of Zimbabwe may soon raise a stink, particularly at the Chibi Administrative Centre in Masvingo Province and the nearby Nyaningwe Growth Point. The Chibi centre has more than 2,000 workers, plus their families, and with the incorporation of Nyaningwe, less than a kilometre away, the population will soon more than double. The problem is that there is a flush-toilet system in the area and their smooth working is being threatened by water shortages, so much so that "serious consideration is being given to the idea of digging and using pit latrines. "Our main problem is that we don't know who would be willing to finance such a scheme," the Chibi District Administrator, Cde Steven Chikasha, said yesterday. Water supplies at the centre were irregular, with pumps working at odd hours. The district had its first rainfall on Sunday last week when only a few showers fell, and the level of the nearby dam was rapidly falling. Both the centre and the growth point were supplied with water from the same source and

any failure in the supply system would affect both areas, he said. Asked about reports that Chibi had so far lost 1,000 head of cattle, he said the situation was becoming gloomier by the day. But a delegation of farmers were given pledges of help with their grazing problems from their counterparts in Mwenezi. Another delegation would go to the Midlands with a similar plea.--Ziana. As the drought worsens, tens of thousands of people in the Midlands are threatened with malnutrition, according to the provincial medical officer, and farmers in Sebakwe and Ngezi areas have been told to stop irrigating. [Text] [Harare THE HERALD in English 2 Feb 83 p 1]

EXTENSIVE DROUGHT RELIEF--The total allocation for drought relief for the financial year starting July 1982 was \$19 055 000, and the total expenditure to December 31 last year was \$6 501 052, the Minister of Labour and Social Services, Mr Kumbirai Kangai, told the House of Assembly last week. "It should of course be appreciated that by now the unspent balance is considerably much less than this amount inasmuch as the drought has expanded rather than receded in 1983," the Minister said. By the end of December last year, the drought relief funds were supporting over three million people or almost half of Zimbabwe's rural population each month. Seed packs, costing \$452 204, were also incorporated in the drought-relief programmes though, Mr Kangai said, the continuation of the drought may considerably neutralise the benefit of the seed pack. A total of \$2 168 946 was spent on maize, \$1 398 822 on groundnuts, \$2 272 951 on beans, and \$7 280 on salt. The Minister said no fruits, vegetables, meat, bread, sugar or cooking oil had been supplied on drought-relief funds, even though these items would normally fall within the scope of the people's regular diet. Transportation and related expenses totalled \$136 556. Mr Kangai told the House that the expenses on transportation of relief supplies by Government were recoverable from the EEC funds donated for the purpose. The Ministry temporarily advanced \$64 290 50 to the Ministry of Water Development for its drought-relief activities. The recoverable advance was made pending the Ministry of Water Development's allocation of its own funds. If the recoverable costs, consisting of the advance to the Ministry of Water Development and the transport costs were deducted from the total expenditure up to December last year, the total expenditure by the Ministry amounted to \$6 300 205. This left a balance of \$12 754 794 out of the total allocation of \$19 055 000. "Were it not for the fact that the drought situation is worsening, the remaining balance would, at the current rate, sustain the same number of people, amounting to just over three million, up to about November 1983. "At this moment, I cannot therefore tell how far these funds will go, neither can I tell if, in the light of the increased severity of the drought, especially over some areas that experienced it last year, we may have to provide a greater variety of food-relief items than we have so far provided," Mr Kangai said. [Text] [Harare THE FINANCIAL GAZETTE in English 4 Feb 83 p 1]

SMALLBRIDGE DAM--Work on the construction of the Smallbridge Dam on the Odzani river in Manicaland will begin in July, a spokesman for the Ministry of Water Resources and Development has said. He said the dam was required to augment the raw water supply to the city of Mutare and is basically a rolled earth-fill embankment, 26m in height, which will store water to a maximum depth of 22m. The water will cover an area of 175 hectares and the dam will store 15 million cubic metres of water. [Text] [Harare THE HERALD in English 10 Feb 83 p 3]

SELLING WATER ILLEGAL--Selling water without authority is a punishable offence, the Deputy Minister of Water Resources and Development, Cde Joseph Kaparadza, told the Assembly yesterday. The deputy minister was replying to a question by Cde Horace Nyazika (Zanu-PF, Mashonaland East) on what action was intended or had been taken to stop the sale of water in Manicaland. Cde Kaparadza said he assumed the question had arisen from a recent newspaper article which said water was being sold for 5¢ a liter in the Marange Communal Areas in Manicaland. Cde Kaparadza said in terms of the Water Act "no person other than the Minister (of Water Resources) or a local authority, an owner of a township or a body corporate established directly by any enactment or by an order-in-council made in pursuance of the Rhodesia and Nyasaland Act of 1963 of the United Kingdom shall sell to any person public water to the use of which he holds a right unless he or it is authorised by the minister to do so." [Text] [Harare THE HERALD in English 5 Feb 83 p 1]

WATER RATIONING--Water will be rationed soon at Mupandawana growth point in Gutu to conserve the reserves in the Woodlands Dam, the main source of supply in the area says the District Administrator, Cde Greene Nyashanu. He told The Herald last week that strict water conservation measures would be introduced next month because the dams were drying up in the drought. "The Turrammurra Dam is already dry and Woodlands is almost half empty now. "We have to ration the water, otherwise we could be faced with a serious situation by June this year." The proposed industrial complex and residential area in Gutu would consume large quantities of water so its conservation was extremely important. Meanwhile, agricultural production has been severely affected by drought and relief programmes have been launched, said Cde Nyashanu. Boreholes were being drilled in the surrounding communal land. "The drought will obviously affect the development programmes in the area because we are trying to direct all our resources to the provision of water to the people," he said. The shortage of water would also affect the establishment of a cooking oil refinery because it depended on groundnuts and sunflowers grown in the district. Several head of cattle had died and more deaths were expected in winter. [Text] [Harare THE HERALD in English 14 Feb 83 p 3]

CSO: 5400/104

ECONOMIC MEASURES FOR PROTECTION, USE OF NATURAL RESOURCES

Moscow FINANSY SSSR in Russian No 1, Jan 1983 pp 33-37

/Article by V.M. Afremov, Candidate of Economic Sciences and senior scientific worker at the Scientific Research Institute of Finance: "Payment for Natural Resources in Industry"

/Text Natural resources -- water, air, minerals, timber, soil -- play a tremendous role. These important components of man's habitat and productive forces serve to satisfy extremely diverse requirements of society. Our country has rich supplies of natural resources at its disposal which define to a considerable degree its economic might.

The requirements for natural resources are increasing annually in connection with the rapidly developing national economy. Meanwhile the natural scantiness of these resources, the inability to reproduce many of them and the large expenditures required for developing new deposits are moving into the foreground the task of ensuring that they are used and protected in a rational manner.

The requirement for a thrifty attitude towards natural resources was advanced by the state during the very first years of Soviet rule. V.I. Lenin's idea concerning the need for realizing maximum economies in the use of natural resources provided the foundation for measures carried out in our country aimed at protecting nature. The natural resources of the USSR have been nationalized and are the property of the people. This circumstance favors their more efficient utilization. Many problems concerned with the rational use and protection of natural resources are reflected in the decisions handed down during congresses and in the party and governmental decrees.

The 26th CPSU Congress established the tasks for providing greater protection for nature during the next five-year period and into the future.

Legal control over the attitudes towards protecting and ensuring rational use of the natural resources in our country is reinforced by the laws of the USSR and the union republics. Based upon these state documents, the problems concerned with studying, developing and ensuring the complete utilization and protection of natural resources are included in the plans for economic and social development, while taking into account the important role played by the natural environment in the development of production and improving the health and well-being of our Soviet people.

A broad complex of measures is being carried out in the interest of achieving efficient utilization of nature, use is being made of a progressive technology for extracting and enriching minerals -- low-waste product and non-waste product processing of raw materials -- use is being made of local types of raw materials and also secondary resources and so forth. At the same time, a complete program for protecting natural resources is being developed and placed in operation and work is being carried out in connection with the reclamation of land, preventing wind and water erosion of soil, preventing and reducing the contamination of soil, water and air by toxic chemicals and industrial and municipal refuse and so forth. State supervision and departmental control have been instituted over all of these operations.

During the 11th Five-Year Plan, 10 billion rubles worth of state capital investments will be expended for measures aimed at protecting nature. In addition, considerable resources are being allocated for this purpose by industrial enterprises, sovkhozes and kolkhozes.

Considerable successes have been achieved in the work concerned with the rational use and protection of natural resources. However, noticeable losses are still being tolerated in many instances and the available supplies are not always being used in a satisfactory manner. Certainly, this is causing great harm to the country's national economy and to the well-being of its population.

At times the causes are economic in nature: a low cost evaluation of the natural resources and insufficient stimulation for their rational utilization. Thus, in addition to organizational-technical and legal measures, a requirement also exists for strengthening existing ones or introducing additional economic measures which will encourage the best utilization and protection of natural resources by all enterprises and departments. It is our opinion that those branches which use natural resources should employ measures which will provide for complete reimbursement for the expenses involved in the reproduction of or payments for these resources.

Recently a number of effective economic measures have been adopted. The Joint Committee for Economic Evaluation of Natural Resources and Measures for Protecting the Environment of the USSR Academy of Sciences and the USSR GKNT /State Committee for Science and Engineering/ developed a "Provisional Standard Method for an Economic Evaluation of Mineral Deposits," which was approved in 1979. Its practical use will promote a more sound monetary (cost) evaluation of minerals, taking into account the national economic effect and will stimulate their rational utilization and conservation. The economic evaluation can be used when establishing the norms for mineral losses during the extraction process, establishing sanctions for above-normal losses of supplies in the depths and so forth. In accordance with a decree adopted in 1979 by the USSR Goskomtrud /State Committee for Labor and Wages of the USSR Council of Ministers/, those workers attached to enterprises and organizations which do not observe the norms and rules for protecting nature and for the use of natural resources are deprived either completely or partially of the bonuses issued for the principal results of their economic activities. In accordance with an existing statute and in the interest of economizing in the use of water resources, a payment was introduced on 1 January 1981 for the diversion of water from aquicultural systems.

However, solutions are still not being found for some problems associated with the rational use of nature and in the case of a number of these problems the scientists and practical workers differ in their opinions as to how best they can be solved.

With regard to achieving a more rational use of nature, great importance is attached to the payments for the use of natural resources. This includes payments into the budget for geological-exploratory work, fixed (rental) payments, forestry income and payments for water. Each payment occupies a definite place in the system for mobilizing and distributing the financial resources of the state.

The proportion of payments into the budget for natural resources, compared to the overall income, is negligible, although the role played by such payments is very great.

In actual practice, the existing system for making such payments has a number of substantial shortcomings. The payments for geological-exploratory work do not compensate for the actual expenditures of the state, they do not encompass all of the types of minerals and they are not always considered to be the most effective method. The rental payments do not take into account the totality of rent-forming factors, in many branches of the extractive industry they have not even been introduced into operations and the methods for computing them leave a great deal to be desired. During some periods the forestry payments do not cover the expenses for forestation and reforestation work and they do not fully take into account the differentiated rent for forestry resources. The absence of an effective mechanism for stimulating the rational utilization of natural resources also serves as a serious shortcoming.

In this regard, a great role can be played by payments for the resources. Structurally differing from existing payments but combining their functions, the new payment structure will make it possible to take into account and to compensate the budget for expenses incurred for the development of resources and to create relatively uniform economic conditions for those organizations and enterprises which utilize resources of different quality, material interest and rational utilization of nature.

The problems concerned with payments for natural resources have been under discussion in our economic press for a long period of time. Many Soviet economists consider such payments to be advisable. For example, T.S. Khachaturov stated that the thriftless utilization of natural resources is harmful to the interests of society and that more efficient use of these resources should be stimulated. He proposed the introduction into operational practice of an economic evaluation for resources and payments for their use*. Some Soviet economists negate the legality of payments for natural resources in the USSR, since under socialism they are nationalized and are a state form of ownership, thus rendering such payments impossible; they maintain that a sale and purchase document is required for such resources for commodity production. In this regard, the resources cannot be viewed as a commodity or have a cost evaluation (price). We consider such a point of view to be unsound.

* Khachaturov, T.S. "Concerning an Economic Evaluation for Natural Resources." VOPROSY EKONOMIKI, 1969, No. 1.

In a capitalist society, where the natural resources are in the hands of private owners, they are viewed as a commodity and have a cost value (price) and during the sale and purchase process they are taken away from their original owners. In a socialist society, the natural resources belonging to the state are also transferred over to individual economic subunits (enterprises) for use. However, here the situation is such that following a transfer the state continues to remain the owner as the representative of society on the whole. Under such conditions, a sale and purchase document is only formal in nature. In a socialist society, natural resources are not viewed as a commodity in the same sense as they are on the capitalist market. However, in the interrelationships between cost accounting enterprises, during the period of their transfer from one to another alone, they assume the form of a commodity and thus must have a cost value (price). The price for natural resources is a form of payment for them.

The introduction of a payment for natural resources raises the need for solving a whole series of problems, mainly of a methodological nature: determining the circle of payers, the structure, special purpose functions, production cost level, the principles for differentiation and the effective periods for the rates, developing the stimulating mechanism, establishing the system for computing the production costs, profits and prices and uncovering the financial sources for covering this payment and the trends for its use.

In our opinion, this payment should be exacted from the primary consumers of the natural resources, since they are the ones who procure and use the natural raw materials required for their own production activities. The payers must be those industrial enterprises (associations, combines) which extract the minerals, procure the timber or consume the water. A payment should obviously be established for each type of natural resource separately. Definite physical units of measurement (ton, cubic meter) can serve as natural objects for ratings.

The payments for natural resources should be organized according to uniform principles and arranged on the basis of a uniform structure. The structure for existing payments for natural resources is different. A forestry payment includes reimbursement for forestry management expenses and for differential rent. In the case of minerals, reimbursement is made for geological exploratory expenses and rental payments are made. At the same time, the payment for water is limited only by the amount required for covering current expenses for the reproduction of the water resources.

Since the payment for natural resources consists mainly of their price, the planned structure for this payment must include the expenses and profits of organizations of the forestry, water and geological exploratory economies and it must take into account the differential rent. If required, its actual structure may include a fine for irrational utilization of natural resources.

The successful functioning of payments obviously requires the establishment of a sound cost level for them, one which will be greatly dependent upon a correct economic evaluation of a given natural resource and the payment structure. In our opinion, its amount should be determined according to the sum of the mentioned elements. The payment level for the individual types of natural resources will differ.

The payment structure should ideally include the expenses of the geological-exploratory, forestry and water organizations for covering the current and economically sound expenditures for their geological-exploratory, forest management, water treatment and other operations, carried out prior to the commencement of exploitation (minerals, timber) and utilization (water) of the natural resources.

The amount of profit required by these organizations for normal cost accounting activity and for the formation of the economic incentive funds can be defined as 12-15 percent of the value of their productive capital or production costs.

The differential rent income is defined as the difference between the public cost (price) of the natural resources sold and the individual expenses of organizations for finding them, preparing them for consumption and for extraction, procurement and utilization. The total amount of differential rent income of a branch on the whole will appear as the difference between the total amounts of this income and the differential rent losses of individual enterprises and organizations. An excess of the rent income over the losses of the entire branch occurs as a rule at those times when relatively higher expenses are accepted as the basis for a price than the average branch (territorial) expenses. For all practical purposes, this is the situation in the petroleum and gas industry.

Individual economists feel that it is not advisable to establish the amount of payment for natural resources in a percentage of the cost (price) for the natural resources, by analogy with the payment for the productive capital or their production costs. In this instance, the more natural resources that an enterprise places in economic circulation, the greater will be the payment that it will have to make into the budget and this naturally diminishes their interest in above-plan extractions of minerals, timber procurements and so forth.

The average branch payment rates can be computed in the plan for individual types of natural resources by dividing the total amount of a payment by the volume of resources sold (minerals, timber) or water diverted. The payment rate for a unit of mineral or timber sold is higher as a rule than that for a unit of resources extracted or procured: indeed the extraction and procurement volumes are greater than the sales volumes, since losses are inevitable during the exploitation of natural raw materials. A higher rate of payment in instances of above-plan losses for a given type of natural resource stimulates to a stronger degree its efficient utilization. The greater the losses the higher the payment.

In connection with the establishment of an average branch rate of payment for natural resources, a question arises regarding the principles for its sound differentiation. Some economists advocate a differentiation of the rates depending upon the territorial expenses for geological-exploratory, forestry and water organizations for searching for minerals, managing forests, treating water and so forth, defined by zones (regions in which the natural resources are located). Such expenses can differ sharply for individual regions of the country. However, it is not considered advisable for the rates to be differentiated according to this factor.

It should be borne in mind that in the case of unified wholesale branch prices for the sale of products of enterprises which use natural resources, a

differentiation of the payment rates depending upon the territorial expenses of the supplier-organizations for these resources leads to the formation of different profits and profitability per unit of output, for reasons which are not dependent upon the activity of the enterprises. And this undermines the principles of cost accounting, distribution according to labor and material interest.

We believe it is more sound for all of the payer-enterprises to provide reimbursement for the mentioned expenses in identical amounts (in the amount of the average branch rate) per unit of output. At the same time, the rates for rent payments should be differentiated according to the rent forming factors, in the interest of achieving a relative smoothing out of the differences in the financial indicators for the work of organizations, payer-enterprises and the consumers of natural resources.

According to the plan, the payment rates for natural resources should be computed once every 5 years -- the effective period for the plans for the economic and social development of the USSR and for the purposeful functioning of the wholesale prices. It is believed that these rates should be established in firm amounts per unit of output and differentiated by years of the five-year plan depending upon the changes in the production costs and in the rent-forming factors. The actual amounts of the rates may differ from those planned (corrected) owing to the different degree of utilization of the natural resources.

In our opinion, such a system will make it possible to determine more accurately the amounts of the payment rates by years of the five-year plan, to examine the financial sources for covering the expenses of geological-exploratory, forestry and water management organizations and to utilize the natural resources more effectively.

The payment of fines by enterprises for the irrational utilization of natural resources -- above-normal losses of minerals and timber, excessive use of water -- can serve as an effective stimulus. In such instances the actual amounts of the payments must exceed the planned amounts. Such a system is already being employed for minerals and water and it should also be established for timber resources. In our opinion, the rates for fine payments must exceed the principal rates by no less than threefold. In the process, the total amount of the additional payment can be determined by multiplying the fine rate by the volume of resources lost over and above the norm (minerals, timber) or used over and above the limit (water). The contributions to the incentive funds of an enterprise will be reduced by this same amount.

A problem exists with regard to the selection of the cost category (production cost, profit, price), in the structure of which the payment for the natural resources will be taken into account. We consider it to be theoretically correct to include in the production costs of enterprises -- consumers of these resources -- the expenses and profits of supplier-organizations for the natural raw materials acquired for further production consumption. The differential rent which forms among the consumer-enterprises must be singled out in their profit structure. The total amount of the payment, determined according to the fine rates, should be included in the actual production costs of the consumer-enterprises, thus reducing the amount of their profits.

In many instances the inclusion of a payment for natural resources in the production costs of consumer-enterprises increases their expenses to such a degree that in the absence of a search for additional financial resources the enterprises operate at a low profitability or even at a loss. Such sources can include raised prices, profits and turnover tax.

An increase in the wholesale prices of an enterprise for natural resources will increase the prices for the products produced from these resources and also growth in prices throughout the entire national economy and this is fraught with undesirable economic consequences. Thus, to the extent that it is possible to do so, this task should be solved with no increase in prices. For example, an increase in the production costs for some minerals (natural gas, construction materials and so forth), when introducing payments for natural resources, can be compensated by reducing a portion of the profit intended to be added to the budget in the form of net surplus. In the petroleum branch -- to reduce partially the turnover tax in the industrial wholesale prices for petroleum products, after having increased the wholesale price of the enterprise for crude petroleum (with no change in the industrial wholesale prices for the petroleum products). In the process, a reduction in budgetary income owing to losses in profit and turnover tax is compensated by a reduction in budgetary appropriations for acquiring natural resources. As a result, no requirement exists for raising the prices and a reduction takes place in the volume of monetary funds to be redistributed among the national economy.

In our opinion, payments for natural resources should be gradually introduced for their individual types, taking into account the available potential and the creation of the required conditions.

A question arises with regard to the utilization of this payment. Obviously, a portion of it should ideally go to the supplier-organizations for the natural resources, in amounts which will compensate them for their expenses and provide them with the profit required for normal cost accounting activity. In those instances where the supplier-organizations are directly reimbursed for their expenses and provided with cost accounting profit, the consumer-enterprises for this natural raw material find themselves in an unequal financial situation, since their expenses and profits vary. Thus, initially the payments for compensating for expenses and providing the necessary profit for the geological-exploratory, forestry and water organizations -- the consumers of the natural resources -- must be added to the centralized funds for financing the USSR Ministry of Geology, the USSR Ministry of the Timber, Pulp and Paper and Wood Processing industry and the USSR Ministry of Land Reclamation and Water Resources for further transfer over to the departmental organizations while taking into account their specific expenditures and profits.

We are of the opinion that the differential rent of individual enterprises and organizations should be placed at the disposal of the branch ministries of the extractive industry, for covering the differential losses of the corresponding cost accounting subunits and for its redistribution within the branch.

An objective need exists for transferring a portion of the payment for natural resources over to the budget, under the following circumstances: first of all, a portion of this payment, in the form of differential rent (an excess of income over expenditures for the branch as a whole), must be withdrawn from the

enterprises and organizations as income which is not dependent upon their activities; secondly, for achieving better interest on the part of the enterprises in the effective utilization of nature, the raised rates (fines) for the irrational use of natural resources should be added to the budget.

Subsequently, the payments made to the budget can be used for financing measures aimed at raising the effectiveness of use of nature and for awarding bonuses to those workers who achieved fine results in the exploitation of natural resources.

Thus the proposed system for introducing payments for natural resources will make it possible to carry out a number of important functions:

- 1) to provide reimbursement for the expenses of geological-exploratory, forestry and water organizations and to ensure that they earn profit for normal cost accounting activity;
- 2) to smooth out the objective differences in the expenses and profits of those organizations and enterprises associated with the influence generated by rent-forming factors on the results of their financial activities;
- 3) to stimulate the rational utilization of natural resources.

Finally, the prerequisites are being created for converting over to cost accounting principles those organizations which presently are operating mainly on the basis of budgetary financing and which are experiencing very little improvement in their economic activity; the principles of material interest and distribution according to labor among organizations which utilize natural resources of varying quality are being strengthened; improvements are being realized in the effectiveness of utilization of nature.

In addition, there is no longer a need for the independent functioning of such payments into the budget as withholdings for geological-exploratory work, forestry payments and rental payments.

The principles set forth above for the development and functioning of payments can be employed for all types of natural resources and this certainly does not preclude the possibility, when deciding upon the payments to be made, of taking into account certain specific peculiarities of their individual types.

The payments for natural resources do not represent the only solution for the problem. There are others. In particular, they include the establishment of economically sound enterprise prices for natural raw materials or improvements in these prices for the sale of finished products, the introduction of effective systems for issuing material incentives to workers who have achieved rational use of natural resources and more rational methods for computing and withdrawing payments today for natural resources.

However, all of these economic measures as a rule are individually capable of solving just one problem, whereas the proposed system of payments for natural resources will make it possible to solve a complex of problems associated with the rational utilization of nature.

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VIOLATIONS OF LAWS ON PROTECTION OF NATURAL RESOURCES

Omsk ZEMLYA SIBIRSKAYA, DAL'NEVOSTOCHNAYA in Russian No 10, Oct 82 pp 46-47

/Article by L. I. Pastukhov, candidate of juridical sciences, and A. G. Lukash, student at Omsk University: "For Violation of Rules of Protection of Nature"

/Text/ The solution of ecological problems, primarily from the position of an efficient utilization and reproduction of natural resources, is also of great importance in the fulfillment of the main task set by the CPSU--ensuring a further rise in the well-being of the Soviet people. Legal methods occupy a special place in the set of measures for the protection of natural resources. In recent years the Soviet state has paid much attention to a clear-cut legislative regulation of the protection of nature. A number of USSR laws on the protection of the atmospheric air, animal world, water resources and so forth have been adopted. The laws "On the Protection of the Atmospheric Air" and "On the Protection and Utilization of the Animal World" have been adopted in the Union republics, including in the RSFSR, at the fifth session of the RSFSR Supreme Soviet of the 10th convocation in July of this year.

All these acts imbued with concern for the welfare and health of workers represent the realization of the Leninist principles of socialist nature utilization. At the same time, the protection of nature is also most directly related to the fulfillment of the food program approved by the May (1982) Plenum of the CPSU Central Committee. Legislation, defining the tasks of state bodies and the importance of the protection of natural resources, also establishes juridical sanctions for acts harmful to the objects of nature. This article offers an analysis of the legal acts whose sanctions are directed toward the suppression of offences against nature characteristic of rural areas and our region.

The output of reservoirs and forests is an important potential for an increase in foodstuffs and, consequently, for a rise in the material standard of living of the Soviet people. The curtailment of industries connected with the gifts of nature (fishing and hunting) in the last few years requires not only reproduction measures, but also intensified control over a rational utilization of water and forest resources and the creation of a situation ruling out impunity for offences. The practice of suppression of violations of fishing and hunting rules and of water and forest legislation points to the need for such control.

For example, during the years of the 10th Five-Year Plan the Verkhneob'rybvod Administration uncovered more than 49,300 violations of fishing rules. In 1981 the Omsk Fish Protection Inspectorate detained 2,044 poachers. In accordance with the

Ukase of the Presidium of the USSR Supreme Soviet dated 27 March 1964 "On Increasing Administrative Liability for a Violation of the Rules of Fishing and of the Protection of Fish Reserves in USSR Reservoirs" persons guilty of a violation of such rules are subject to a fine: citizens, up to 10 rubles and officials, up to 50 rubles. A gross violation of the indicated rules, if there is no criminal liability, involves a fine of up to 50 rubles on citizens and of up to 100 rubles on officials. These sanctions are applied by fish protection bodies along with compensation for the damage done to the state at the established rate (for example, for one specimen of a common and Caspian sturgeon, 100 rubles, nelma and salmon, 75 rubles, trout, 50 rubles, humpback salmon and muksun, 30 rubles, sterlet, 20 rubles, pelyad, 10 rubles and so forth).

Thus, the amount of fines imposed on violators by the Verkhneob'rybvod Administration in 1980 totaled more than 250,000 rubles. In 1981 the Omsk Fish Protection Inspectorate imposed fines of about 35,000 rubles on more than 1,900 people. A number of materials were transmitted to investigating bodies for the solution of the problem of instituting criminal proceedings against violators according to article 163 of the RSFSR Criminal Code providing for a sanction of up to 4 years of imprisonment.

The use of water resources and sanitary and fishing supervision have a direct effect on the level of fish breeding and fishing. Legislation entrusts such supervision to sanitary inspection and fish protection bodies. In particular, the sanitary-epidemiological service controls the implementation of measures for the prevention and elimination of pollution of surface and underground water with harmful industrial discharge and household waste. The fish protection inspectorate supervises the operation of enterprises discharging sewage and waste into reservoirs and participates in the commissioning of projects using fishing reservoirs for discharge of industrial runoff. For example, in 1980 the Omsk Fish Inspectorate carried out 260 checks of industrial enterprises and uncovered 117 violations connected with the pollution of reservoirs.

At the same time, an analysis of the normative acts and practice of supervision in this direction makes it possible to draw a conclusion on the need for an expansion of the powers of fish protection inspectorates. The point is that, while in the fight against the pollution of reservoirs they have the right to submit proposals on the suspension of hydraulic engineering, transport and other types of operations, which can do damage to the fish industry, to the appropriate bodies, they have no powers to apply administrative sanctions. At the same time, according to the results of similar checks, the sanitary inspectorate has the right to impose a fine of up to 50 rubles on officials.

Other types of violations of the water protection regime--mismanaged and arbitrary use of water, pollution and contamination of water and commissioning of enterprises without installations preventing the pollution and contamination of reservoirs--also do damage to water resources. In accordance with legislation such violations involve the imposition of fines of up to 50 rubles on citizens and of up to 100 rubles on officials. Fines are imposed by bodies for the regulation of the use and protection of water of the USSR Ministry of Land Reclamation and Water Resources, the USSR Ministry of Geology (in the part of underground water) and the Northern Sea Route Administration of the USSR Ministry of the Maritime Fleet.

As we see, several supervisory organizations guard our country's water resources, but a wasteful attitude toward them is still prevalent. The literature (A. I. Kazannik, "Administrativno-Pravovaya Okhrana Prirody Basseyna Oзера Baykal" [Administrative-Legal Protection of Nature in the Basin of Lake Baykal], 1977 and so forth) and the periodical press wrote about this. For example, concern for the fate of Lake Nadezhdinsk in Omsk Oblast, for small reservoirs and so forth was often expressed (OMSKAYA PRAVDA, 17 July 1982).

Forests, like land, mineral resources and water, are the exclusive property of the state and, naturally, it is interested in their reproduction, protection and efficient utilization. The Ukase of the Presidium of the USSR Supreme Soviet dated 6 August 1980 "On Administrative Liability for a Violation of Forest Legislation" provides for liability in the form of a fine of up to 50 rubles on citizens and of up to 100 rubles on officials for such violations as illegal cutting of and damage to trees and shrubs, destruction of forest crops, seedlings and young plants, violation of the established procedure of the use of forest resources and so forth. Such seemingly harmless offences as arbitrary hay mowing and grazing of livestock on the land of state forest resources not covered with forests and arbitrary gathering of wild fruits, berries, mushrooms and nuts on plots where this is prohibited and possible only according to forest permits involves a fine of up to 10 rubles on citizens and of up to 50 rubles on officials.

Industrial enterprises often become the enemies of forests, damaging them with sewage, chemical substances and industrial discharge and waste. The officials of such enterprises incur liability in the form of a fine of up to 100 rubles.

The violation of fire safety rules does tremendous damage to forest resources. Fire danger is especially high during summer time. For example, 312 forest fires broke out and more than 490 hectares of forest areas grown by man with a great deal of difficulty were destroyed in Omsk Oblast in 1981. Damage of a significant amount was done to the state and it is compensated very slowly. Forest protection bodies imposed a fine on 172 violators of forest legislation, that is, up to 100 rubles on officials and up to 50 rubles on citizens. With respect to many violators materials were transmitted to investigating bodies. Illegal cutting and arbitrary seizure of forest land are still widespread.

Violations of forest legislation are closely connected with offences encroaching on the animal world in forests. The state establishes rules of management of a hunting facility and of hunting, whose violation may involve both administrative and criminal liability. Citizens who are members of the society of hunters, have passed examinations in the hunting minimum and have paid a state duty have the right to hunt with sporting guns. Hunting of prohibited types of animals and fowl with the use of generally dangerous or destructive guns and methods, with sporting guns belonging to other persons or organizations and with a violation of the procedure established on a certain territory at a prohibited time and place is considered a violation of hunting rules.

Illegal hunting (poaching), along with criminal liability, results in administrative liability in the form of a fine of 50 rubles with or without a confiscation of sporting guns. The output of poaching accrues to the state as its property.

On 1 March 1981 the Fundamentals of Legislation of the USSR and the Union Republics on Administrative Offences established a sanction for a violation of hunting rules in the form of deprivation of the right to hunt for the period of up to 3 years (for a gross or systematic violation of these rules). However, this measure of punishment cannot be applied to persons for whom hunting is the main source of livelihood.

The state also establishes the extent of the damage done to a hunting facility per illegally caught head of animal (fowl) regardless of its age. For example, in Omsk Oblast damages for illegally shooting an elk are set at 500 rubles, a bear, 200 rubles, a beaver, 400 rubles, a lynx, 100 rubles, a hare, 20 rubles and so forth. The amount of claims for damage done by illegal hunting in this oblast in 1981 totaled more than 36,000 rubles. More than 1,230 violations of hunting rules were uncovered, for which over 36,000 rubles of fines were imposed. A total of 449 sporting guns were taken away from poachers and criminal proceedings were instituted against 14 people.

However, there are also shortcomings in the application of sanctions for a violation of the rules of hunting, fishing and forest legislation. In particular, the amounts of imposed fines and damages often are by no means recovered fully. For example, compensation for damage done by poaching comprises a little more than 55 percent and recovery of fines, 80 percent. In 1981 only one-third of the damage from forest fire was compensated and recovery of fines in connection with violations of fishing rules comprised a little more than 80 percent. Of course, such a practice lowers the efficiency of the fight against violations of the legislation on the protection of nature.

The operation of enterprises servicing gas purifying and dust collecting installations has a big effect on our environment. Control over the operation of such enterprises is entrusted to the State Inspectorate for Control Over the Operation of Gas Purifying and Dust Collecting Installations. A violation of the rules of operation of these installations--their nonutilization and removal from service owing to negligence--involves a fine of up to 30 rubles. In turn, ignoring the orders of the state inspectorate for elimination of shortcomings in the operation of gas purifying and dust collecting installations involves a fine of up to 50 rubles. Fines for the indicated offences are imposed on officials by administrative commissions of executive committees of rayon and city soviets of people's deputies.

The purity of the atmospheric air also depends on the operation of transport facilities with unadjusted engines releasing carbon monoxide or smoke above the established standard. That is why we would like to see more often the appropriate services (state automobile inspectorate and so forth) checking the content of exhaust gases of transport facilities. In our opinion, administrative legislation providing for liability for violations of road traffic rules also could contribute to the fight for air purity. In particular, it does not yet contain a clear indication on sanctions for a higher toxicity of exhaust gases. Meanwhile, every year the increasing motor pool poisons the atmospheric air to an ever greater extent.

To be sure, the preservation of the beauty of nature, rational utilization of its unique resources and provision of the purity of the atmospheric air can be attained not only by legal state measures, but also by the development in the Soviet people of a sense of concern and responsibility both to present and future generations.

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STRENGTHENING LAWS ON ENVIRONMENT IN LATVIA

Riga SOVETSKAYA LATVIYA in Russian 11 Jan 83 p 4

[Article by U. Krastyn'sh, member of LaSSR Supreme Court, candidate of legal sciences, under rubric "The Citizen and the Law": "In the Interests of Protecting the Environment"]

[Text] Our country has created a scientifically substantiated system of legal norms which contains rules for protecting the natural resources and using them efficiently.

Unfortunately, there is still a large number of violators. This forces the improvement of legislation in the area of the protection of the environment, and imposition of stricter punishments upon malefactors and upon those who take a wasteful attitude to the land, its mineral resources, and the forests, and who do not have any concern about the purity of the bodies of water or the atmospheric aid.

In those instances when the administrative measures prove to be insufficiently effective or an extremely tangible damage has been inflicted upon the environment, the persons who are guilty are brought to criminal responsibility.

For example, the people's court in Ventspils has sentenced D. Panasyuk and I. Yukhnevich to corrective labor for having taken a negligent attitude to their official duties; they are to blame for the fact that the waters in the Ventspils Ocean-going Trade Port had more than two tons of diesel fuel dumped into them.

The people's court of Liyepayskiy Rayon sentenced to corrective labor for a period of one year Yu. Byartulis, who, without the appropriate authorization, chopped down 113 young trees. He is also supposed to compensate the damages that were inflicted upon the forestry station -- to pay 1,298 rubles.

The cases that the people's courts have to consider most frequently are criminal cases against violators of the hunting and fishing rules. Various periods of deprivation of freedom [incarceration] were the sentences given, for example, to O. Lidums for having illegally shot two elk; V. Tsirulis and E. Latsis, who engaged for a prolonged period of time in poaching in the tributaries of the Gauya River; and others.

The normative documents that are in effect contain special statutory rates for computing the amount of damage that has been inflicted upon the environment. The material responsibility ensues, irrespective of whether the guilty individual has been brought to administrative or to criminal responsibility -- in any case he must repay the damage, as a rule, in the full amount.

It must be noted that whatever the sum that is imposed to repay the damage, everything that has been obtained illegally is confiscated, and if that which was obtained was used by the transgressor or was sold, he must repay its value at the retail price.

If fish have died as a result of the pollution or contamination of bodies of water, the material damage must be repaid by the enterprises, institutions, or farms that are guilty of that.

In May of the present year, a Ukase of the Presidium of the LaSSR Supreme Court has introduced into the appropriate articles of the republic's Criminal Code certain changes and additions that are aimed at the further reinforcement of the protection of the environment. It would seem that this should be discussed in more detail.

Article 225 of the UK [Criminal Code] currently stipulates the responsibility not only for the pollution of bodies of water and the atmospheric air, but also for contamination of the soil. The persons who can be brought to criminal responsibility are the officials and citizens who are to blame for the fact that the soil has been put in a state that is unsuitable for economic use as a result of the careless storage of poisonous chemicals or the dumping of production, construction, and other waste products.

In the previous wording of Article 225, criminal responsibility for the pollution of bodies of water and underground water ensued if that pollution was caused by dumping of runoff water or waste products which had not been purified or rendered harmless. Life has shown that bodies of water are basically polluted by petroleum products, mineral fertilizers, and poison chemicals when they are carelessly stored, transported, or used. With a consideration of that fact, Article 225 in the new wording stipulates criminal responsibility for any pollution of bodies of water, underground water, or the soil, if the consequences indicated in the article have ensued or could ensue: the causing, or the possibility of causing, of damage to people's health, the national economy, or to animal or plant life.

Equally, the responsibility for pollution of the atmospheric air is not linked simply with one source of pollution -- industrial waste products. The responsibility ensues in any instance if the pollution of the atmospheric air, or a harmful physical effect upon it (noise, radiations), irrespective of the source, result in the consequences indicated by the law.

Article 206 of the LaSSR Criminal Code stipulates criminal responsibility for destroying or damaging natural objects or monuments of history and culture that have been taken under protection by the station. The protected natural objects include specially protected landscapes, monuments of nature, especially rare species of animals and plants which are listed in the 15 April 1977 decree of the

LaSSR Council of Ministers, entitled "The Establishment of Natural Objects Which Are Subject to State Protection on the Territory of Latvian SSR."

The new wording of this article precludes the pointing out of premeditated blame in this crime. The need for correction was caused by the fact that the natural objects and monuments that are being protected by the state are sometimes damaged as a result of lack of caution when carrying out construction, land-reclamation, and other operations. The establishment of criminal responsibility not only for deliberate, but also for careless destruction or damage to them is a serious warning to managers and the persons directly responsible for carrying out various operations.

There has been a change in the content of Part 1 of Article 161 of the republic's Criminal Code. The justification now for the bringing of a criminal suit for the illegal chopping down of a forest is the damage that has been inflicted on the timber management, in the amount of 100 rubles according to the existing statutory rates. Administrative responsibility has also been established for the illegal chopping down of a forest; this had not been previously established. Thus, at the present time, for causing damage by the illegal chopping down of a forest in an amount up to 100 rubles, a person is brought to administrative responsibility or has measures of public coercion applied to him.

5075

CSO: 5000/58

PROBLEMS OF WATER INSUFFICIENCY AND LOSS IN AZERBAIJAN

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 31 Oct 82 p 2

[Article by A. Akhmedov, candidate of technical sciences (Baku): "Where is the Water Being Lost"]

[Text] Many cities are experiencing a shortage of water. And this is not because there is none: it is utilized poorly and wastefully, not in an economical way, although expenditures on water management are increasing from year to year.

Take, for example, Azerbaijan. The supplies of fresh water taken into account per capita in the republic are one-ninth of the level for the country as a whole. But water reservoirs and water lines are being constructed at accelerated rates, artesian wells are being drilled and group water lines are being constructed.

But there continues to be a strain on the water supply of the Apsheron economic region. This cannot but have an effect on the fact that in Baku the proportion of industrial consumption in the overall balance in the expenditure of water is very high: about 35 percent. Additionally there is a tendency toward an increase, mainly because of the large losses of water. Last year industrial enterprises exceeded the daily limit of expenditures of drinking water by 21,400 cubic meters. There was an overexpenditure of water at 111 enterprises, the majority of them of the union ministry of the petrochemical industry and the ministry of light industry. It is also typical that not one enterprise reduced the expenditure of water. For example, the Baku textile combine imeni V. I. Lenin exceeded the established annual limit by 1.8 million cubic meters.

Industry expends valuable drinking water mainly for technological needs. Thus at the combine for facing materials it cools saws when sawing marble, and then goes into sewage. So far the combine does not have industrial water and is not creating a system for recycled water supply. And this is not the only example.

The enterprises pay for the overexpenditure of water 5-fold. This same Baku textile combine imeni V. I. Lenin last year paid 537,000 rubles in fines. And it is not the only one. Fines for overexpenditure of water are exacted

correctly, but they do not frighten anyone: they are paid from the state pocket, and not by the specific guilty parties. And a fine in no way reflects in the indicators for evaluating the operation of the enterprise and does not affect the bonus fund. Obviously, it is time to find the parties who are personally guilty of overexpending water.

Much water is expended at public catering and consumer service enterprises. They do not even have water meters. And therefore the amount of water that is expended is unknown. There is no discussion of economizing on it. The Bakvodoprovod is not interested in installing meters since these consumers pay for the cost of water on the basis of the diameter of the pipe through which it runs regardless of the actual consumption. Has this purely departmental interest not been triumphing over state interests for too long?

Much can be done to economize on the consumption of water as a result of improving technological processes. The question must be raised strictly: the utilization of drinking water for production purposes should be permitted only in places where this need is dictated by technology. And at enterprises of the petroleum and petroleum processing industry there is no need for this, although they still consume about 17 percent of the water resources in the city. Even though the coefficient of the utilization of recycled water here could easily be increased to 80 percent. This would make it possible to save 200 cubic meters of fresh water a day.

The losses of drinking water are also great in the residential sector. And if one takes into account that the comfortability of our homes, like their quantity, is increasing rapidly, this will require further expansion of water lines. But at the same time research shows that because of the disrepair of faucets and valves, the leakage of water in the city's residential area reaches 30-40 percent of the average daily norm of consumption. And therefore the actual expenditure of water reaches a thousand and more liters per person per day, or twice as much as any progressive norms. Such losses are especially great at night, when the pressure in the main water lines increases. It has been calculated that because of faulty faucets more than 2,000 cubic meters of water leak out each year. There is another piece of arithmetic: more than 200 rubles are spent to prepare, purify and bring this water to the consumer.

The condition of the Baku water line is unsatisfactory and requires basic repair. An average of 13 kilometers of mainlines are repaired each year, and the overall length of the water line is 1,180 kilometers. With the existing rates it will take 90 years to replace it while the time period in which the water line will be physically worn out is one-fourth of this.

An unjustifiably large amount of fresh water is expended for irrigating green planted areas in the cities of the republic. I am not suggesting that they be reduced; on the contrary, I welcome the amount of greenery that is being planted. But the squares, lawns and parks should be irrigated not with drinking water but from underground sources. As early as 1976 a special service for operating various kinds of wells was created under the Baku

administration for greenery. In the near future the extraction of water from them is to double. The implementation of this decision requires control.

11772

CSO: 5000/55

ULTRA-MODERN COPENHAGEN WASTE-TREATMENT FACILITY DEFENDED

Copenhagen BERLINGSKE TIDENDE in Danish 15 Feb 83 p 2

[Article by Hk: "Oresund Now Free of Sludge for One Month"]

[Text] After a number of difficulties with incineration of sludge at the Copenhagen Municipal purifying Plant at Lynetten, it was noted in the city hall with satisfaction that during the past month the plant has functioned correctly. The sludge has been incinerated as intended, and it has not been necessary to resume the highly criticized practice of releasing sludge into the Oresund.

City engineer Erik Gulstad told BERLINGSKE that it is now hoped that the plant will function and fulfill the expectations that were properly hoped for from the billion kroner investment.

The city engineer did not deny that there had been many disappointments with the waste-treatment facility since it was put into operation in 1980. There have been problems in the sludge incinerating plant since it started in the autumn of 1980. The two German-supplied ovens have had many breaking-in problems, and one of them has already been replaced by the German firm. The new oven is now taking care of the incineration alone without problems. Now they want the second oven replaced, and want the supplier to pay for it. The question of payment will be decided by arbitration.

Erik Gulstad does not deny that incineration of sludge has been poor, and that there have been too many technical difficulties with the conveyor belt and such. This has naturally been a great disappointment for him, since he is responsible for the operation of the plant.

During 1982 the dumping of unincinerated sludge into the Oresund was about one-third of the average amount of sludge, and that is far from satisfactory, even though it can hardly be expected that there will be total incineration.

In that connection the city engineer emphasized that the sludge, after having passed through the plant, is less polluting than untreated sludge, and they have also been able to confirm that waste water going to Lynetten is less polluted than expected when the plant was projected in the mid-1970's.

Environmental awareness has grown more than anticipated.

The city engineer said further that they have begun a study of the loading of the Oresund, and the acceptable loading has not been surpassed. In short, the Oresund has become much cleaner since Lynetten has been in operation, and the bathing water is completely satisfactory to use. It can still be cleaner, and that will happen when the old oven is replaced later in the year.

9287

CSO: 5000/2549

NITRATE POLLUTION THREATENING GROUND WATER

Copenhagen AKTUELT in Danish 12 Feb 83 p 26

[Article by Carl-Johan Rosenberg: "Nitrate Pollution Threatening Ground Water"]

[Text] It is probable that the quality of the ground water in several areas of Jutland is threatened by steadily increasing nitrate pollution, and this is apparently now being confirmed.

An investigation by Ringkøbing County shows noticeable steadily increasing amounts of nitrate in the ground water during the period 1970-1980. Some places have double the amount, but in general the amounts during this period increased by 50 percent.

During the past couple of years there has been talk of a decline. But that was attributed to unusual climatic conditions, and is unfortunately only temporary, according to geology assistant Jens Badsgard Pedersen of the Ringkøbing County water authority. He estimates that the nitrate concentrations are again beginning to increase.

The cause of the increased nitrate pollution of the ground water is not yet clear. It is suspected, however, that the cause lies in modern methods of agriculture. When the ground lies fallow during the autumn and winter months, there are no plants to extract the nitrate which is constantly being formed by excess nitrogen from artificial and natural fertilizer in the topsoil. Particularly in light soil, some of the nitrate seeps down toward the ground water.

In an announcement from the environmental administration the upper limit of nitrate in the drinking water was established at 50 milligrams per liter. At the same time it stated for guidance that local authorities can give their waterworks dispensation up to 100 milligrams per liter, or otherwise the water supplies would become unreasonably expensive.

It is intended that the environmental administration should be informed of each individual dispensation. They admit, however, that that does not

happen in all cases. The result is that there is no overall knowledge of how many Danes are obliged to drink water with amounts of nitrate which exceed the desirable healthy amount.

Infant Poisoned

At the same time there is concern that an infant in Gram apparently was poisoned by nitrate, with cramps and blue coloring of the face after drinking well water with 83 milligrams of nitrate per liter (the child was emaciated). Because of this and other factors the environmental administration is collecting information about ground water quality in the most threatened areas.

In certain water supplies examples are known of both 200 and 300 milligrams of nitrate per liter of water. That is usually in farm wells, which have typically been exposed to local pollution with surface water. On the other hand the environmental administration knows of no waterworks water with greater nitrate content than 100 milligrams per liter.

There is such, however. The water in Hjerik waterworks at Nordsalling contains 116 milligrams per liter. Four months ago the district physician asked the little waterworks for suggestions for improvement of the quality. He still has received no answer. The waterworks has still not requested dispensation from the county for exceeding the limit of 50 milligrams per liter.

The explanation from the manager was, "If we ask for a dispensation and do not get it, we would have to close the waterworks."

9287

CSO: 5000/2549

ENVIRONMENT AGENCY TO STUDY OIL POLLUTION IN DANISH WATERS

Copenhagen BERLINGSKE TIDENDE in Danish 10 Feb 83 p 9

[Text] The Environmental Protection Agency will now start an investigation into the total amount of oil pollution in Danish waters. The purpose is, among other things, to establish where and to what extent chronic oil pollution of the sea is taking place, as well as the consequences of ordinary oil spills from ships and, at worst, the actual loss of tankers.

The plans for the investigation were presented last Wednesday to well over 30 experts on the environment who had gathered for a meeting in the Ministry of Foreign Affairs in Copenhagen. The experts constitute a group set up by the so-called Paris Committee, and they represent 13 different countries bordering on the North Atlantic, who have agreed among themselves to take steps to seek to prevent all forms of pollution of the sea. The group meets once a year and this time met in Copenhagen.

"We have received 500,000 kroner for the study from the research fund of the Environmental Protection Agency," says Kjeld Frank Jørgensen, M.Sc., of the Environmental Protection Agency. The study may be performed at a relatively low cost because our marine laboratory is able to perform some of the tests and because some of the samples may be collected via the vessels of the Environmental Protection Agency, one of which vessels also has a laboratory on board.

The study will include, among other things, a study of the level of oily substances contained in the organism of the common mussel. The said shellfish is considered to be an excellent indicator because it is found in most parts of the oceans and it, therefore, is easy to perform comparative studies of its content of pollutants.

Kjeld Frank Jørgensen expects the study to be completed in the spring of 1984, when a report will be prepared, possibly with proposals how to further combat oil pollution.

7262

CSO: 5000/2545

ROSKILDE FJORD HIT BY OIL SPILL

Copenhagen BERLINGSKE TIDENDE in Danish 21 Feb 83 p 3

[Article by Per Sabroe: "Environmental Alarm--Tons of Oil Out in Roskilde Fjord"]

[Text] Several tons of thick floating fuel oil oozed out into Roskilde Fjord over the weekend. An extensive cleanup began Sunday morning, and it continues today. The environmental alarm included several fire departments, Falck, civil defense and environmental authorities, ornithologists, sportsmen and the air force.

The release of the oil took place at Ota Company at Marbaeck, just south of Frederikssund. An employee discovered a defect in the fuel supply to the installation's drying oven. The oil had oozed from a tank into the fjord.

At 8:45 pm the alarm was received by the fire department in Frederikssund, and on Sunday the action was begun which grew to 100 men. The oil flowed out into the fjord and toward the south.

The Frederikssund Fire Department, under the leadership of Fire Inspector Svend Aage Rasmussen, went into action together with the Hillerod Civil Defense, and they met a whole convoy of vehicles and equipment to combat the oil. Falck came also, and when the oil flowed toward the south the action was initiated one kilometer south of the Ota Company, where this firm has an old plant.

A 200-meter long floating barrier was laid out in the fjord along cable masts from the Frederikssund side to Torslev Hage, where the fjord narrows to a smaller stretch. They tried to direct the oil into a cove, but some of it escaped from the barrier, so the alarm was sent to the Horns Herred side. The fire departments from Jaegerspris and Skibby municipalities came out, and a barrier was laid 100 meters north of the harbor at Skuldelev.

In the meantime environmental authorities had sent the ship "Mette Miljo" from Copenhagen. Today it will assist in pumping the heavy oil from the

surface, and eventually "sink" the remainder by chemical treatment. That is, however, a method which must be used very carefully, especially in the fjords, because it causes pollution of the bottom.

On Sunday the barriers were hauled ashore so that they can be used this morning to assist the environmental ship.

There is some ice south of Skuldelev and the rest of the way to Roskilde, and according to observers at the harbor in Skuldelev, who followed the action all afternoon, there was hope that the edge of the ice would perhaps stop the oil. There is a chance, however, that it will flow in under the ice, and thereafter be difficult to pump up again. It could also happen that the oil might flow northward during the night, because the current often shifts with the tides.

There are many birds in Roskilde Fjord--at this time of the year especially gulls, swans and ducks. Local sportsmen went out in boats, but only a few birds had been killed. It is feared that such action by sportsmen will be more necessary today.

The Ota Company pumps shells up from the bottom of the fjord. These are dried and crushed and used as a calcium supplement in chicken feed. It was bad luck that the oil escaped from the tank, and yesterday the grounds and surrounding area were thick with oil. Yesterday nobody could exactly say how much oil had been released into the fjord. Estimates were heard from 16 tons down to 2-3 tons.

9287

CSO: 5000/2549

WILDERNESS AREAS SEEN THREATENED BY LOCAL INTERESTS

Copenhagen AKTUELT in Danish 31 Jan 83 p 3

[Article by Lennart Weber]

[Text] The shelved plans to move the Vejle-Billund highway to the preserved Vejle Ådal [Vejle River Valley] have been produced anew by local politicians. This has once more given rise to a heated debate as to whether it makes sense to devastate a beautiful Danish wilderness area, which, moreover, has been preserved by order of the Nature Conservation Board.

A major environment scandal will result if local politicians succeed in persuading the nonsocialist government to present a bill which will lift the preservation regulations governing Vejle Ådal.

That would be the first time in history that a preservation regulation is set aside.

Decades of Dispute

The dispute concerning the said road has been going on for decades. The present Vejle-Billund highway passes through Skibet town north of the church. The local authorities have been working on plans for a long time to move the road south of the town, where it will be passing through Vejle Ådal, which is one of the most beautiful wilderness areas in Denmark.

There have previously been plans to lead the road north of Skibet town. But these plans encountered local protests from farmers who would not like to give off their farm land.

About 12 months ago, it looked as if the supporters of devastating the preserved area would get the support of the Social Democratic government.

Former Minister of Transport J.K. Hansen stated that he would support the idea of revoking the preservation regulation by law, so that the road could be led through Vejle Ådal.

Stopped by Erik Holst

Consideration of these ideas was halted abruptly when the minister of transport received a 'friendly' letter from his colleague, Minister for the Environment Erik Holst.

Erik Holst wrote that it would be the first time since the adoption of the first nature preservation act in 1917 for an attempt to be made to set aside a preservation regulation by law.

The letter went on to say:

"I assume that you will agree with me that, for technical as well as political reasons, it ought to be out of the question for a Social Democratic government to violate this principle and thus undermine the protection offered by the Nature Conservation Board, which has always received wide support in the Folketing."

J.K. Hansen, subsequently, dropped the plan to relocate the road to the preserved area. Everybody felt that the matter had thus been finally settled.

However, local politicians, who, apparently, still want to devastate the preserved area, have not given up. They have raised the question anew, both in the Vejle city council and in the Vejle county council.

A few days ago, VEJLE AMTS FOLKEBLAD tried to cause further complications in the matter. The paper printed an article, saying that "Haraldskær is threatening to close down."

Haraldskær is the estate in the preserved river valley where the National Association of Building Societies holds its courses.

Distorting Matters

Verner Jørgensen of the National Association of Building Societies: "We would not dream of making such a threat. Nothing would be more alien to us. I find that VEJLE AMTS FOLKEBLAD is distorting the matter grossly. One cannot help wondering whether the article is to be used politically to convince the Folketing that the preservation regulation will have to be lifted."

Former Minister for the Environment Erik Holst:

"I am surprised that the question of relocating the road through the river valley has now been brought up again. I cannot imagine that the present or any future government can bring themselves to propose legislation to revoke the preservation regulation governing the river valley."

7262

CSO: 5000/2545

GROUP URGES LEAD BE ENTIRELY REMOVED FROM GASOLINE

Copenhagen AKTUELT in Danish 5 Jan 83 p 16

[Article by Carl-Johan Rosenberg]

[Text] In 2 years, at the latest, it will be possible to purchase lead-free gasoline in this country.

With this demand, the Automobile Workers' Trade Union seeks to persuade the government to become more involved in the efforts to introduce a less hazardous type of gasoline.

The trade union refers to a medical study which showed that 52 out of 82 mechanics who were examined had harmful amounts of lead in their blood. Children are also exposed to lead poisoning via the exhaust gases of automobiles. Against this background, the members of the Automobile Workers' Trade Union find that adding lead to gasoline is unreasonable. For experience from Japan and the United States, among other countries, shows that it is technically feasible to operate an automobile on lead-free gasoline.

Former Minister for the Environment Erik Holst (Social Democratic Party) reduced the upper permissible limit for lead in gasoline from 0.4 grams per liter to 0.15 gram. As far as 'super' gasoline is concerned, the new upper limit will not take effect until the summer of 1984. At present, an EC directive prevents any further reduction of the permissible upper limit for lead in gasoline.

The present minister for the environment, Chr. Christensen (Christian People's Party) has cautiously given his support to further efforts against lead pollution "to the extent that such efforts may be expediently furthered at the EC level."

His predecessor, however, finds this too vague:

"I am disappointed that Chr. Christensen did not use his term as chairman within the EC Council of Ministers to stress clearly that it is the firm intention of Denmark to reduce the content of lead in gasoline further--that is to say, without replacing it by other harmful additives," Erik Holst says.

He finds that the period up to the summer of 1984 will have to be used to make preparations for the next step toward a lower lead content in gasoline.

That this is technically feasible is already clear. It is, for example, known that 15 percent methanol added to gasoline will, without any unfortunate side effects, give the gasoline the same technical properties now provided by the harmful lead. Against this background, they are in Sweden in the process of planning a methanol factory. Methanol is more costly to use as an additive than lead, but this may be compensated by way of an internal excise duty policy, over which the EC will have no control.

"It is possible that methanol is not the final technical solution to the problem. But in a period of transition it may be a definite possibility to stimulate the sale of lead-free gasoline containing methanol by means of a lower rate of excise duty on this product," says Erik Holst, who, in this way, indicates his readiness to meet the demand made by the Automobile Workers' Trade Union.

7262

CSO: 5000/2545

INTERIOR MINISTRY TO TAKE MEASURES TO SAVE FORESTS

Zurich NEUE ZUERCHER ZEITUNG in German 28 Jan 83 p 4

[Article by Gae.: "Dying Forests in the FRG"]

[Text] Munich, mid-January--Of late there have been a number of initiatives in the FRG calling for the introduction of immediate measures to put a certain halt to the dying of trees. The proposals came from various sources and were made almost simultaneously. Bavaria's SPD declared that in view of the "galloping rise in the seriousness of dying forests" one can no longer remain idle and wait until the final results are available from research and investigative efforts. Consequently it wants to ask Bavaria's state government to adopt a Hesse proposal in the Bundesrat, which calls for a penalty of DM 2,000 for every ton of proven emission of sulphur dioxide.

Two days later Baden-Wuerttemberg's Land government also went into action. Minister-President Spaeth wants to introduce a new standard for the protection of forests; it is to be included in Bonn's government proposal for the "Technical Guide for Air," which was taken over from the SPD/FDP coalition. Accordingly, sulphur-dioxide emission levels are to be established at 50 micrograms per cubic meter (long-term level) and 150 micrograms per cubic meter (short-term level).

And just 1 day later, FRG Minister of the Interior Zimmermann stated that he was willing to support measures to halt the dying of forests. To be sure, he indicated that as far as he was concerned it was wrong to add to the burdens of industry by imposing an additional levy or to charge consumers of electricity a "forest penny." He agreed, however, to work for the adoption of a "major-generator decree," which is to limit drastically the emission of harmful substances, particularly sulphur dioxide and nitric oxides. Subsequently all power plants will have to install big filters or they will be closed. The Federal Government's intention is to "set standards" also for the neighboring countries.

the "quiet catastrophe" in the German forests is indeed impressive. It affects particularly the ridges in the Harz mountains and in Bavaria and is also increasing in the Black Forest. In Baden-Wuerttemberg a thorough investigation was recently conducted in South Baden, which revealed that the damage

increased significantly during the last year. Of the entire forest area (1.3 million hectares), as much as 50,000 hectares of silver-fir terrain is diseased, some of it is already dead. More than 70,000 hectares of pine forests show signs of damage.

Half of Bavaria's forests, an area covering 2.5 million hectares, have been "damaged to some extent." Heavy damage affects 10 percent. More than one-third of all the forests in the entire FRG--7.3 million hectares--show symptoms of damage, one-tenth shows heavy damage. In Lower Saxony it is said to be almost 14 percent. And the most frightening example is reported to be in the GDR: In the Erz mountains a 170,000-hectare area of forest is dead.

In the meantime research activities have started everywhere, but no conclusive results have been reached. In addition to climatic influences, the causes definitely are air pollution with sulphur dioxide, nitric oxides, ozone, dust particles and heavy metals from industry, automobiles and home heating. In this connection acid soil is mentioned as one of the primary causes, although recently incidents of damage have also been discovered on lime soil in the Bavarian Alps. The impending Bundestag elections apparently led to the fact that the dying of trees, which to date has caused damages amounting to DM 3 billion, has become an important political item--certainly a step in the direction of overdue therapy.

8991

CSO: 5000/2541

GOVERNMENT DECIDES TO LOWER LEAD CONTENT OF GASOLINE

Helsinki HELSINGIN SANOMAT in Finnish 28 Jan 83 p 11

[Article: "Cabinet Decides to Decrease Lead Content of Gasoline; Use of new Fuel To Be Delayed Several Years"]

[Text] The shift to the use of low lead content gasoline will take place in Finland gradually after the midpoint of the 1980's. The Cabinet reached the decision on the limits of lead content in gasoline on 27 January 1983.

The decision decreases the lead content to 0.15 grams per liter from the present content of 0.4 grams per liter. Health considerations are given as the reason.

Additional specifications are needed before the production and marketing of completely leadfree gasoline can be undertaken. These will be forthcoming from an air pollution control committee to be established shortly.

The Cabinet decision goes into effect on 1 January 1985, but the limitation on the lead content of gasoline does not go into force until 1 January 1986. The benzene content of gasoline is also limited on the same date to 5 percent. The limitation applies also to imported gasoline.

Considerable added costs are involved in the lowering of the lead content of gasoline. For the Neste Oy refinery at Naantali this will mean an additional investment of 150 to 200 million markkas.

In addition, the production of low-lead gasoline requires 2 percent more crude oil than the production of the present type. When converted into cost figures, these factors add from 60 to 8 pennis per liter/100 pennis=1 markka/to the price of gasoline.

Neste Oy assumes that the added costs will be included in consumer prices. Currently under discussion is whether the Neste Oy itself will be able to provide the additional investment, or whether state funding will be required.

The low-lead gasoline will reach consumer service stations only gradually, because existing supplies in Finland will last a year beyond the date at which the production of low-lead gasoline is begun.

The shift to the use of low-lead gasoline is justified on the basis of health considerations. Lead is one of the most poisonous of elements. Its effects include changes in the composition of the red blood cells, weakening in the formation of hemoglobin, and disturbances in the behavior and learning abilities of children.

Presently lead concentrations in Finland have been noted to be of a fairly low order, but certain children's playgrounds, in Helsinki at least, have been noted to have dangerous lead levels.

The lowering of the lead content of gasoline is justified in the Cabinet on the basis of long-term hazards. On the basis of health and general biological reasons, the exposure of people, particularly of children and expectant mothers, to lead contamination must be reduced to the least possible amount, in the opinion of the Cabinet.

Compression Requires Lead

Lead is added to gasoline as a motor fuel in order to improve the compression qualities. This ability to withstand compression is measured by the octane rating. Lead acts also as a lubricant in the valves.

The lead content of gasoline has been reduced to 0.15 grams per liter in many West European countries, including Sweden, Norway, Denmark, Austria, Switzerland, the German Federal Republic, Britain, Greece, and the Netherlands.

5955

CSO: 5000/2543

BARCELONA AIR POLLUTION FORCES TRAFFIC, INDUSTRIAL CUTBACK

Barcelona LA VANGUARDIA in Spanish 28 Jan 83 p 17

/Text/ The gradual increase in air pollution in metropolitan Barcelona has caused the city councils to publish and enforce resolutions in an attempt to control the pollution. The emergency services of the different hospitals are filled to overflowing with the large number of persons suffering from respiratory ailments.

The campaign against air pollution is being coordinated by the Corporation of Metropolitan Barcelona. Minimal results in improving the severe environmental situation can be achieved only by joint action on the part of all the city councils of Barcelona's industrial belt. What has traditionally been done--that a city council impose whatever measures to combat pollution without the neighboring city's doing the same thing at the same time--does no good at all. Hence municipal activities are all being directed by the Metropolitan Corporation.

Yesterday the levels of pollution were considerably increased with respect to those recorded on Wednesday. Barcelona's air contained more smoke and sulfur dioxide than 24 hours earlier. The worst air quality was recorded in Barcelona, where the amount of smoke and SO₂ suspended in the air had shown a marked increase. The same phenomenon was recorded in Badalona, Sant Adria, Santa Coloma and l'Hospitalet. From the point of view of climatic conditions the only difference from preceding days was that yesterday temperatures reached much higher levels. At 1300 hours the temperature was at 19° in Lesseps Square and 21° in Sabadell. This warming of the lower strata of the atmosphere prevented the thermal inversion (which is, by definition, what makes it impossible for the environmental pollution to ascend to the highest levels of the atmosphere and settle at a level estimated at 400 meters. Furthermore, according to the official report, forecasts indicate that the anticyclone is weakening very slowly but it is not likely that substantial changes will occur or that there will be very strong winds to bring about appreciable clearing.

Hospital Crowding

As happens on these occasions, public health is suffering the consequences of the pollution. Yesterday the facilities of the Clinical Hospital were filled to capacity, especially the emergency services. The hospital management

appealed to the population to refrain from presenting themselves at the center except in very serious cases. The rate of admission was constant throughout the day and exceeded the capacity of the available facilities. The personnel had to double their efforts. Most of the patients admitted were suffering from respiratory and pulmonary complaints. On the same subject, the directors of emergency services at Saint Paul's Hospital declared to LA VANGUARDIA literally that "they were full clear up to their ears, although the services had not yet collapsed." The rate of medical assistance in the Del Mar Hospital was also constant, even though it did reach the figures of the two above-cited medical centers. In Sabadell, according to Dr Jose Maria Plans, the health commissioner, "the number of citizens needing hospital care with visible symptoms of difficult breathing has increased due to the pollution." The problem worsened when the La Salud Clinic also ceased to function as a consequence of the patients who entered due to the influenza epidemic affecting the entire city. For Dr Plans, the current outbreak of flu is one of the worst in several years. The Bellvitge Residency did not escape the epidemic either. Mateu Serra, our correspondent in Baix Llobregat, informs us that the number of consultations by patients with respiratory illnesses underwent a sharp increase without causing the emergency services to collapse.

Measures for Today

Faced with the deterioration of atmospheric conditions, most of the city councils of the metropolitan area have drawn up antipollution regulations which can go into effect and surely will do so. In the case of Barcelona, Mayor Pascual Maragall has ordered that if the rates of pollution change for the worse certain potential polluters will be required to use fuels with a low level of contaminants, hours of heating will be restricted and a transport and traffic plan will be put into effect to regulate the use of motor vehicles. Residents of Barcelona are requested to use public transport, cut down on home heating and avoid any activity that may adversely affect atmospheric conditions.

In Badalona, according to information reported by our correspondent Miguel Lopez, the Municipal Council for Ecology and the Environment will keep a very close watch over factories and other sources of pollution located inside the city limits. As in the case of Barcelona, they request that the residents use private cars as little as possible. In the Torrasa district of l'Hospitalet the city council has decreed a state of alert. Our correspondent Maria Dolores Perez informs us that the parking of heavy vehicles on Mas and Montsany streets has been prohibited and that double parking will be closely monitored. If air pollution increases a state of vigilance will be decreed. The same measures are anticipated in Sabadell.

The action of responsible parties in the municipal governments aim especially at controlling the pollution caused by industry. In the case of the thermal plants located in the enclave between Badalona, Sant Adria and Barcelona, they have been obliged to reduce their output and to use fuels causing less pollution. So that the cities do not suffer from this decline in generation a transfer of electric power has been ordered from different parts of the coun-

try, including Bilbao and even from France. CAMPSA /Leasing Company of the Petroleum Monopoli, Inc./ is watching over the storage of nonpolluting fuel in order to provide it as soon as necessary. The Metropolitan Corporation of Barcelona has informed this publication that "if conditions do not improve obligatory measures will be progressively imposed until the rates of pollution come down."

Political Opportunism

This new crisis of environmental deterioration has been seized upon for political purposes. Ramon Trias Fargas, candidate of the Democratic Convergence of Catalonia for the mayoralty of Barcelona, has declared that "this is an inherited problem, but the Socialists have been in the municipal government for 3 and a half years and have done nothing to solve it." He added that he did not want to be an alarmist but that pollution in Barcelona has arrived at such a degree of degradation that it endangered the very lives of the citizens. Trias Fargas concluded by saying that "the Socialists should concern themselves with imitating the recent and successful English experiments, among other things."

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FIRMS REFUSE TO TAKE ON DANGEROUS JOB OF DIOXIN CLEAN-UP

Stockholm DAGENS NYHETER in Swedish 17 Feb 83 p 36

[Article by Bo Engzell]

[Text] Nobody wants to handle the disposal of barrels containing extremely dangerous poisons from the environmental scandal factory BT Kemi in Teckomatorp, Skane!

The barrels in question contain dioxin--the same poison that spread fear and terror when it was released by an industrial firm in Seveso, Italy.

Some of the barrels of dangerous poisons from BT Kemi have been transported out of the country and disposed of abroad. These shipments were handled by SAKAB, a state- and municipal-owned firm. About one thousand barrels of poison still remain in the area where BT Kemi once operated. The factory was disposed of by government authorities.

A West German firm is now supposed to pick up more than 600 of the poisonous barrels. However, the Germans refuse to take on barrels containing dioxin. That poison is too dangerous; they want nothing to do with it.

Earlier, East Germany also refused to handle this poison. East Germans had originally planned to dispose of all the poisons in the area, but later changed their mind.

Hence, for now, more than 300 barrels of the so-called Seveso poison must remain on the premises until SAKAB can arrange for a disposal site in Kvantorpe near Orebro.

In the future, SAKAB will use this site to destroy all of the most dangerous industrial poisons in Sweden, including dioxins. However, experts have warned that cancer-producing substances may be released into the air when the dioxin is burned if the temperature within the furnaces drops. For that reason, some continental firms have refused to take on the poisonous dioxin from Teckomatorp.

So far, the clean-up of the BT Kemi area in Teckomatorp has cost Swedish taxpayers close to 50 million kronor. That also includes district and Circuit Court of Appeals costs associated with the legal action against the director of BT Kemi. The Circuit Court of Appeals in Malmo will shortly deliver a judgment in the environmental case, which is in a class by itself and the largest scandal of its kind in Sweden.

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SWEDEN

BRIEFS

AERIAL-SPRAYING LAW PROPOSAL--Municipalities will be allowed to ban aerial spraying of forests against leaf problems, according to a new government law proposal, which will go into effect 1 January 1984. There is now a general ban against aerial spraying, but provincial governments have been able to grant exemptions from year to year. In the opinion of the government, this arrangement does not allow municipalities or the forest industry to plan for the long term. There will continue to be a general ban against aerial spraying, but exemptions may be granted by forestry boards if municipalities decide not to ban aerial spraying altogether. The permanent ban was introduced 1 January 1983 after a long and controversial debate on the issue. The law proposal is based on a compromise between the nonsocialist parties following a provocative parliamentary debate in the fall of 1981. Up to now, municipalities have only been consulted on the issue of aerial spraying. According to the new proposal, municipalities themselves can ban aerial spraying. [Text] [Stockholm SVENSKA DAGBLADET in Swedish 11 Feb 83 p 7] 8952

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